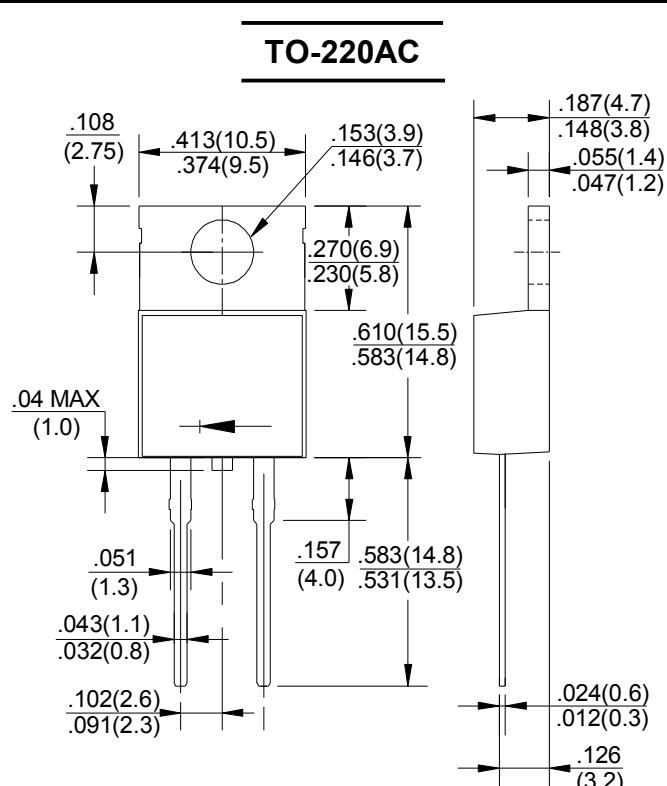


SCHOTTKY BARRIER RECTIFIERS	REVERSE VOLTAGE - 30 to 150Volts FORWARD CURRENT - 16.0 Amperes										
<b>FEATURES</b>	 <p><b>TO-220AC</b></p> <p>Dimensions in inches and (millimeters)</p>										
<ul style="list-style-type: none"> <li>• Metal of silicon rectifier , majority carrier conduction</li> <li>• Guard ring for transient protection</li> <li>• Low power loss,high efficiency</li> <li>• High current capability,low VF</li> <li>• High surge capacity</li> <li>• Plastic package has UL flammability classification 94V-0</li> <li>• For use in low voltage,high frequency inverters,free wheeling, and polarity protection applications</li> </ul>											
<b>MECHANICAL DATA</b>											
<ul style="list-style-type: none"> <li>• Case: TO-220AC molded plastic</li> <li>• Polarity: As marked on the body</li> <li>• Weight: 0.08ounces,2.24 grams</li> <li>• Mounting position :Any</li> </ul>											
<b>MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS</b>											
Rating at 25°C ambient temperature unless otherwise specified.											
Single phase, half wave ,60Hz, resistive or inductive load.											
For capacitive load, derate current by 20%											
CHARACTERISTICS	SYMBOL	MBR 1630	MBR 1640	MBR 1650	MBR 1660	MBR 1680	MBR 16100	MBR 16150	UNIT		
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	30	40	50	60	80	100	150	V		
Maximum RMS Voltage	V <sub>RMS</sub>	21	28	35	42	56	70	105	V		
Maximum DC Blocking Voltage	V <sub>DC</sub>	30	40	50	60	80	100	150	V		
Maximum Average Forward Rectified Current ( See Fig.1)	I <sub>(AV)</sub>	16.0						A			
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	150						A			
Peak Forward Voltage (Note1) IF=16A @TJ=25°C IF=16A @TJ=125°C	V <sub>F</sub>	0.63 0.57	0.75 0.65	0.85 0.75	0.95 0.92						
Maximum DC Reverse Current @TJ=25°C at Rated DC Bolcking Voltage @TJ=125°C	I <sub>R</sub>	0.5 15	0.5 10	0.3 7.5	0.1 5						
Typical Junction Capacitance (Note2)	C <sub>J</sub>	500						pF			
Typical Thermal Resistance (Note3)	R <sub>θJC</sub>	3.0						°C/W			
Operating Temperature Range	T <sub>J</sub>	-55 to +150						°C			
Storage Temperature Range	T <sub>STG</sub>	-55 to +175						°C			
NOTES:1.300us pulse width,2% duty cycle. 2.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC. 3.Thermal resistance junction to case.											

# RATING AND CHARACTERISTIC CURVES

## MBR1630 thru MBR16150

**HY**

FIG. 1 – FORWARD CURRENT DERATING CURVE

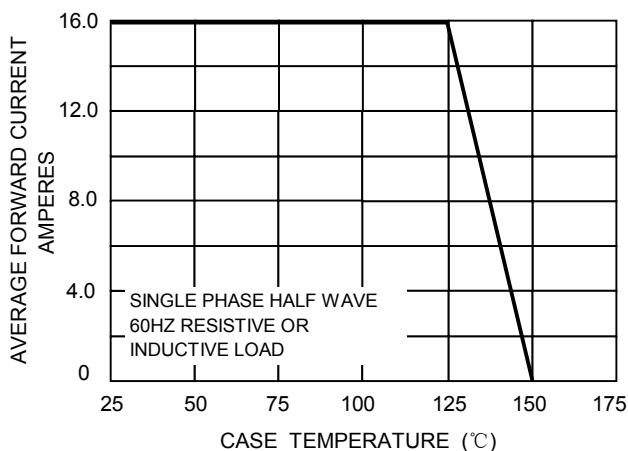


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

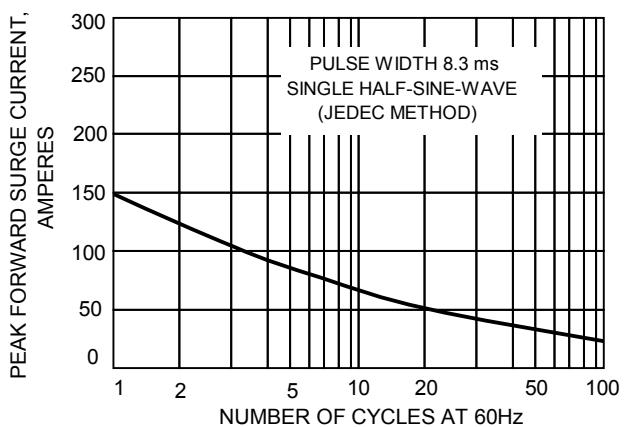


FIG.3-TYPICAL REVER CHARACTERISTICS

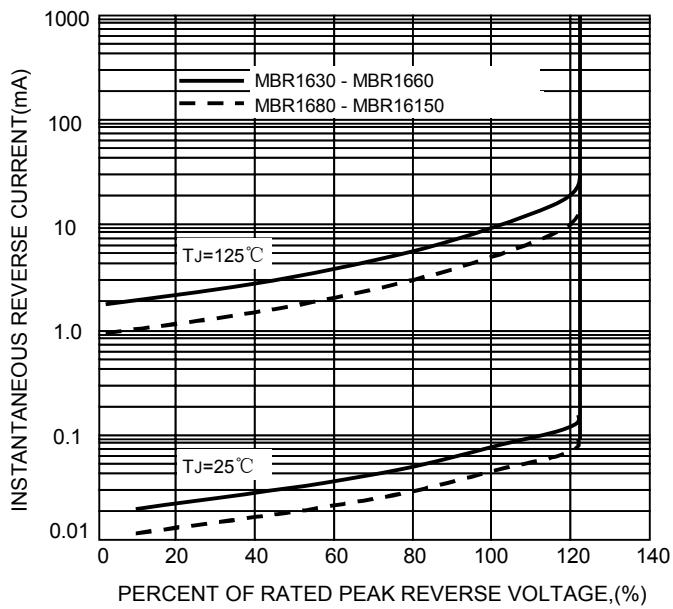


FIG.4-TYPICAL FORWARD CHARACTERISTICS

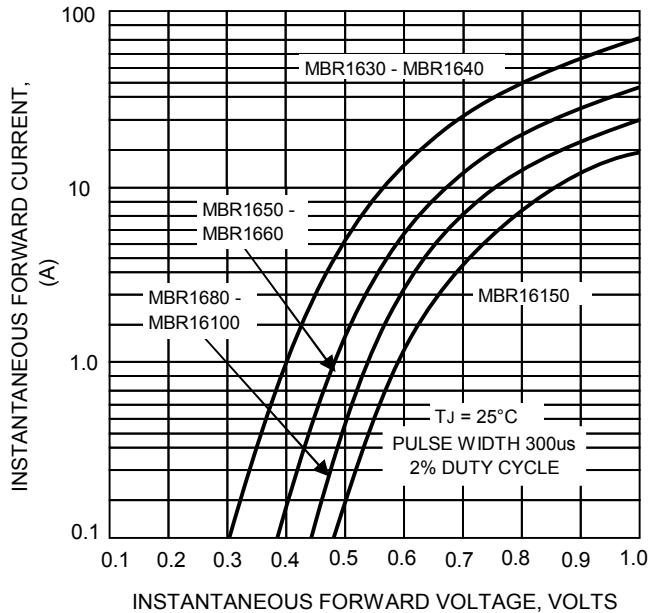
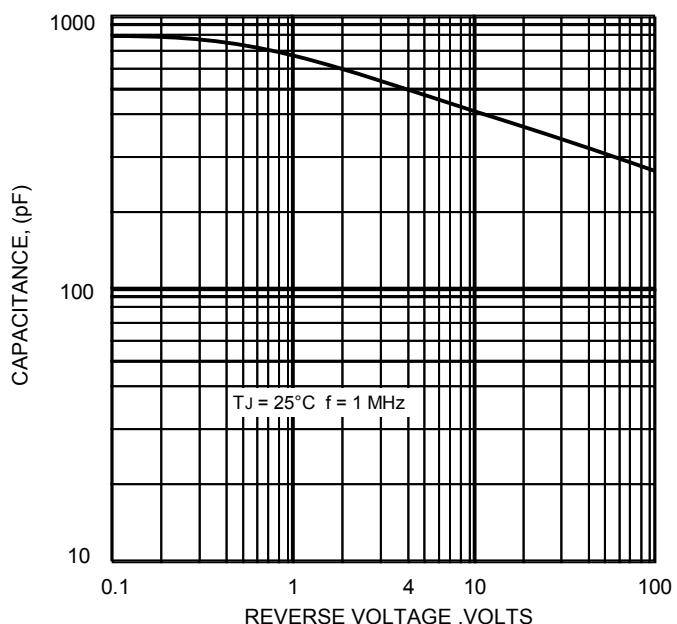


FIG.5 – TYPICAL JUNCTION CAPACITANCE



SCHOTTKY BARRIER RECTIFIERS	REVERSE VOLTAGE - 30 to 150Volts FORWARD CURRENT - 16.0 Amperes										
FEATURES	ITO-220AC										
<ul style="list-style-type: none"> <li>● Metal of silicon rectifier , majority carrier conduction</li> <li>● Guard ring for transient protection</li> <li>● Low power loss,high efficiency</li> <li>● High current capability,low VF</li> <li>● High surge capacity</li> <li>● Plastic package has UL flammability classification 94V-0</li> <li>● For use in low voltage,high frequency inverters,free wheeling, and polarity protection applications</li> </ul>	<p>The drawing shows the physical dimensions of the ITO-220AC package. Key dimensions include:  - Total height: .610(15.5) mm / .571(14.5) in.  - Lead thickness: .04 MAX (1.0) in.  - Lead width: .138(3.5) mm / .122(3.1) mm / .118(3.0) mm / .102(2.6) mm.  - Lead spacing: .386(9.8) mm.  - Case width: .189(4.8) mm / .173(4.4) mm.  - Case height: .118(3.0) mm / .106(2.7) mm.  - Lead length: .114(2.9) mm / .098(2.5) mm.  - Lead thickness: .030(0.76) mm / .020(0.51) mm.  - Lead width: .059(1.5) mm / .043(1.1) mm / .030(0.76) mm / .020(0.51) mm / .112(2.84) mm / .088(2.24) mm.</p>										
MECHANICAL DATA	Dimensions in inches and (millimeters)										
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS											
Rating at 25°C ambient temperature unless otherwise specified.											
Single phase, half wave ,60Hz, resistive or inductive load.											
For capacitive load, derate current by 20%											
CHARACTERISTICS	SYMBOL	MBRF 1630	MBRF 1640	MBRF 1650	MBRF 1660	MBRF 1680	MBRF 16100	MBRF 16150	UNIT		
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	30	40	50	60	80	100	150	V		
Maximum RMS Voltage	V <sub>RMS</sub>	21	28	35	42	56	70	105	V		
Maximum DC Blocking Voltage	V <sub>DC</sub>	30	40	50	60	80	100	150	V		
Maximum Average Forward Rectified Current ( See Fig.1)	I <sub>(AV)</sub>	16.0						A			
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	150						A			
Peak Forward Voltage (Note1) IF=16A @T <sub>J</sub> =25°C IF=16A @T <sub>J</sub> =125°C	V <sub>F</sub>	0.63 0.57	0.75 0.65	0.85 0.75	0.95 0.92						
Maximum DC Reverse Current @T <sub>J</sub> =25°C at Rated DC Bolcking Voltage @T <sub>J</sub> =125°C	I <sub>R</sub>	0.5 15	0.5 10	0.3 7.5	0.1 5	mA					
Typical Junction Capacitance (Note2)	C <sub>J</sub>	500						pF			
Typical Thermal Resistance (Note3)	R <sub>θJC</sub>	3.0						°C/W			
Operating Temperature Range	T <sub>J</sub>	-55 to +150						°C			
Storage Temperature Range	T <sub>STG</sub>	-55 to +175						°C			
NOTES:1.300us pulse width,2% duty cycle. 2.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC. 3.Thermal resistance junction to case.											

# RATING AND CHARACTERISTIC CURVES

## MBRF1630 thru MBRF16150

**HY**

FIG. 1 – FORWARD CURRENT DERATING CURVE

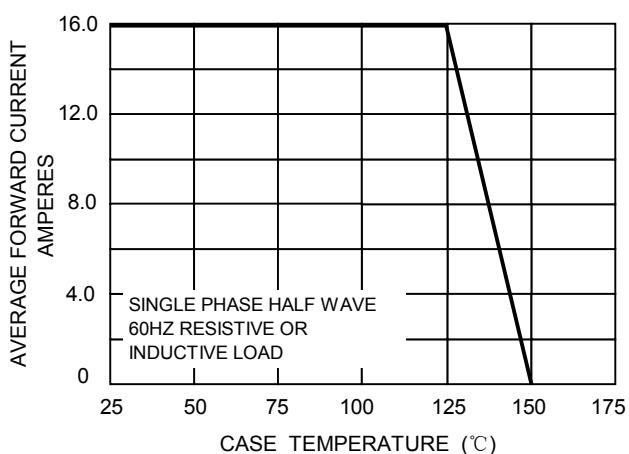


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

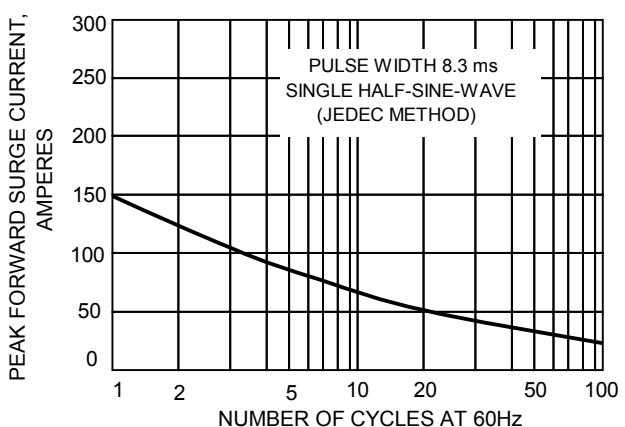


FIG.3-TYPICAL REVERSE CHARACTERISTICS

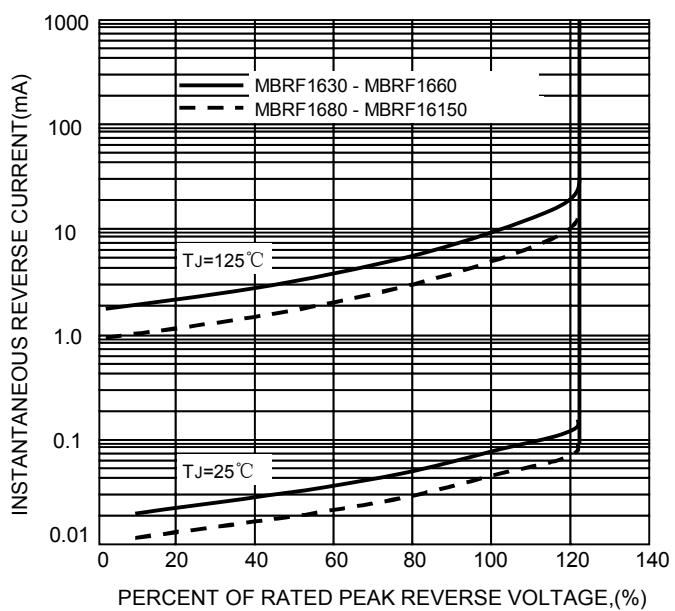


FIG.4-TYPICAL FORWARD CHARACTERISTICS

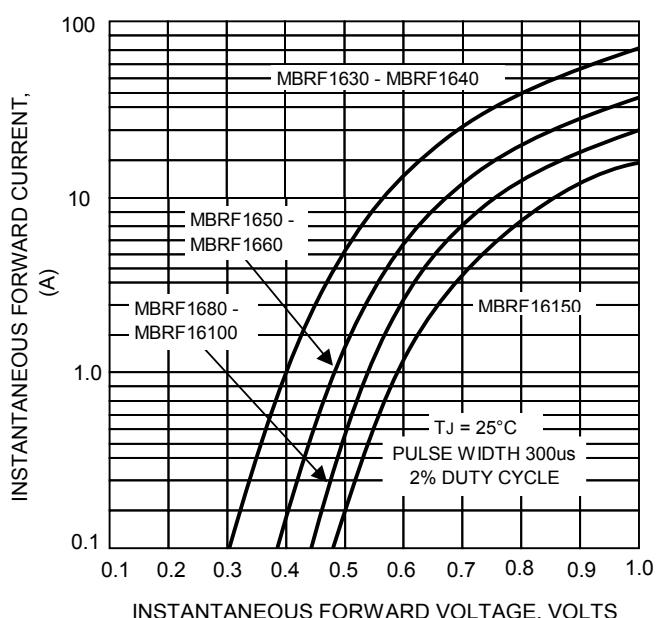
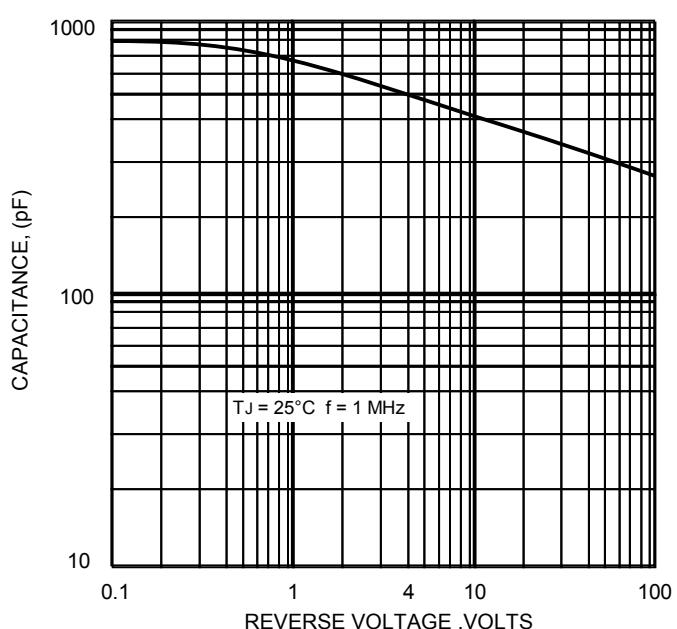


FIG.5 – TYPICAL JUNCTION CAPACITANCE



SCHOTTKY BARRIER RECTIFIERS	REVERSE VOLTAGE - 30 to 150Volts FORWARD CURRENT - 16.0 Amperes																				
<b>FEATURES</b>																					
<ul style="list-style-type: none"> <li>● Metal of silicon rectifier , majority carrier conduction</li> <li>● Guard ring for transient protection</li> <li>● Low power loss,high efficiency</li> <li>● High current capability,low VF</li> <li>● High surge capacity</li> <li>● Plastic package has UL flammability classification 94V-0</li> <li>● For use in low voltage,high frequency inverters,free wheeling, and polarity protection applications</li> </ul>																					
<b>MECHANICAL DATA</b>	<p align="center"><b>TO-220AB</b></p> <p>The diagram shows the physical dimensions of the TO-220AB package. Key dimensions include:      Top View: Total height = .108 (2.75), Top lead thickness = .051 (1.3), Lead thickness = .043 (1.1) / .032 (0.8), Lead spacing = .102 (2.6) / .091 (2.3).      Side View: Total width = .187 (4.7), Total height = .148 (3.8), Total lead thickness = .055 (1.4), Total lead spacing = .047 (1.2), Total lead length = .610 (15.5) / .583 (14.8), Total lead height = .157 (4.0) / .531 (13.5), and Bottom lead thickness = .024 (0.6) / .012 (0.3).      Dimensions are given in inches and millimeters.</p>																				
<b>MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS</b>																					
Rating at 25°C ambient temperature unless otherwise specified.																					
Single phase, half wave ,60Hz, resistive or inductive load.																					
For capacitive load, derate current by 20%																					
CHARACTERISTICS	SYMBOL	SR 1630CT	SR 1640CT	SR 1650CT	SR 1660CT	SR 1680CT	SR 16100CT	SR 16150CT	UNIT												
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	30	40	50	60	80	100	150	V												
Maximum RMS Voltage	V <sub>RMS</sub>	21	28	35	42	56	70	105	V												
Maximum DC Blocking Voltage	V <sub>DC</sub>	30	40	50	60	80	100	150	V												
Maximum Average Forward Rectified Current ( See Fig.1) @T <sub>c</sub> =95 °C	I <sub>(AV)</sub>	16						A													
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	150						A													
Peak Forward Voltage at 8.0A DC(Note1)	V <sub>F</sub>	0.55		0.70		0.85		0.95													
Maximum DC Reverse Current @T <sub>j</sub> =25°C at Rated DC Bolcking Voltage @T <sub>j</sub> =100°C	I <sub>R</sub>	1.0 50						mA													
Typical Junction Capacitance (Note2)	C <sub>J</sub>	350						pF													
Typical Thermal Resistance (Note3)	R <sub>θJC</sub>	2.5						°C/W													
Operating Temperature Range	T <sub>J</sub>	-55 to +125						°C													
Storage Temperature Range	T <sub>STG</sub>	-55 to +150						°C													
NOTES:1.300us pulse width,2% duty cycle.																					
2.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.																					
3.Thermal resistance junction to case.																					

# RATING AND CHARACTERISTIC CURVES

## SR1630CT thru SR16150CT

**HY**

FIG. 1 – FORWARD CURRENT DERATING CURVE

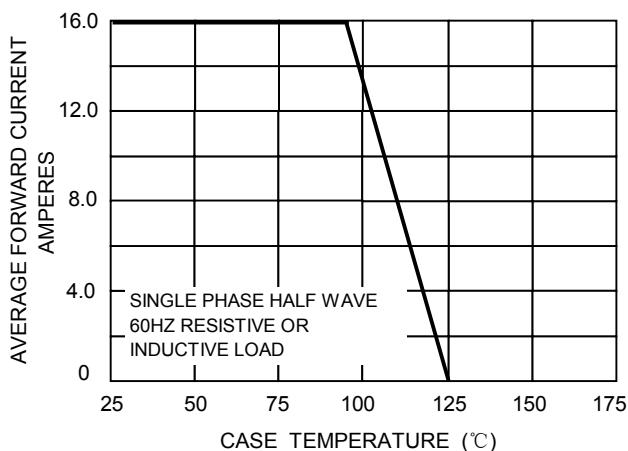


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

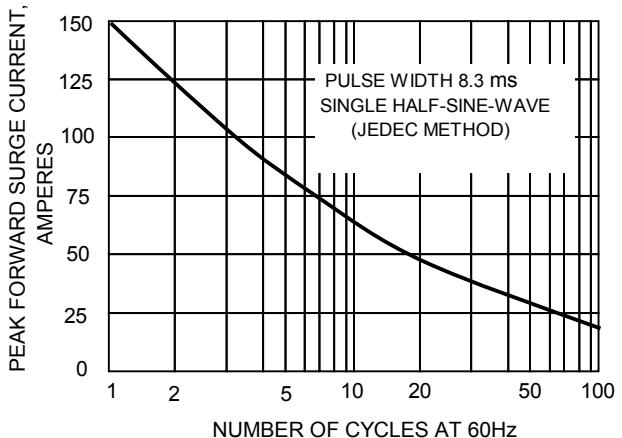


FIG.3-TYPICAL REVER CHARACTERISTICS

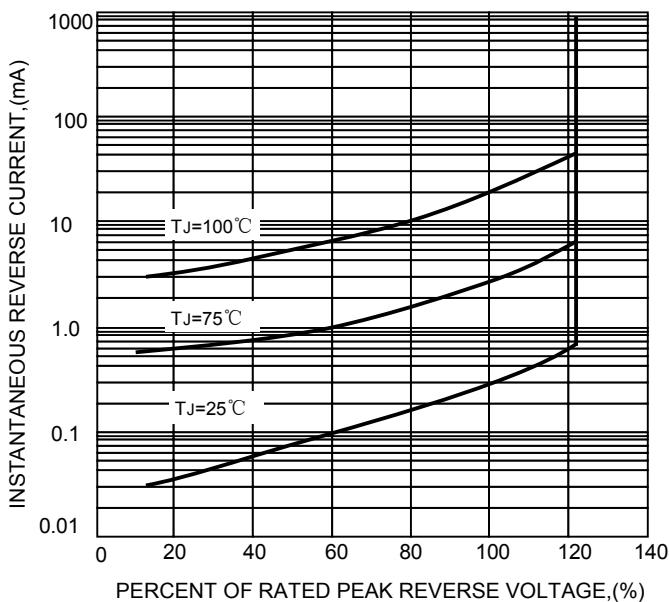


FIG.4-TYPICAL FORWARD CHARACTERISTICS

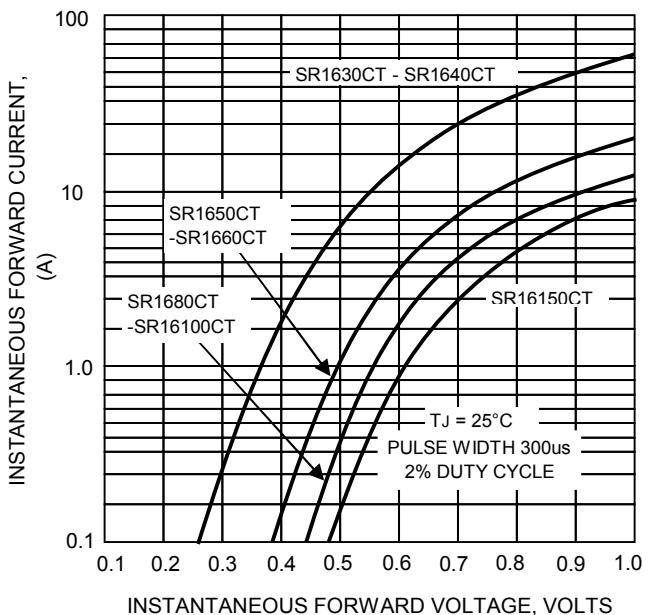
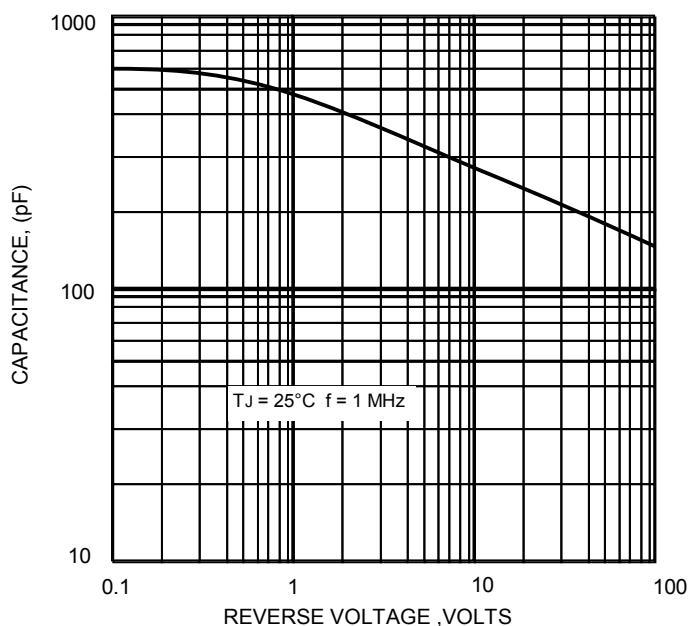
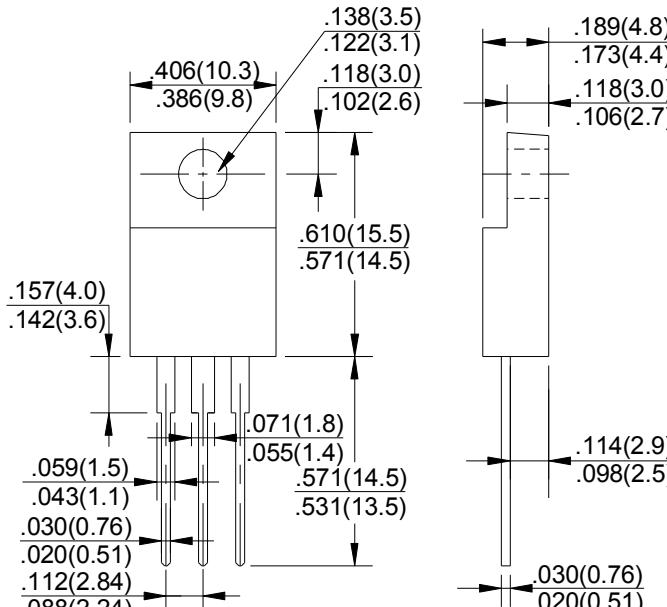


FIG.5 – TYPICAL JUNCTION CAPACITANCE



SCHOTTKY BARRIER RECTIFIERS	REVERSE VOLTAGE - 30 to 150Volts FORWARD CURRENT - 16.0 Amperes											
FEATURES	ITO-220AB											
<ul style="list-style-type: none"> <li>● Metal of silicon rectifier , majority carrier conduction</li> <li>● Guard ring for transient protection</li> <li>● Low power loss,high efficiency</li> <li>● High current capability,low VF</li> <li>● High surge capacity</li> <li>● Plastic package has UL flammability classification 94V-0</li> <li>● For use in low voltage,high frequency inverters,free wheeling, and polarity protection applications</li> </ul>	 <p>Dimensions in inches and (millimeters)</p>											
MECHANICAL DATA												
<ul style="list-style-type: none"> <li>● Case: ITO-220AB molded plastic</li> <li>● Polarity: As marked on the body</li> <li>● Weight: 0.08ounces,2.24 grams</li> <li>● Mounting position :Any</li> </ul>												
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS												
Rating at 25°C ambient temperature unless otherwise specified.												
Single phase, half wave ,60Hz, resistive or inductive load.												
For capacitive load, derate current by 20%												
CHARACTERISTICS	SYMBOL	SRF 1630CT	SRF 1640CT	SRF 1650CT	SRF 1660CT	SRF 1680CT	SRF 16100CT	SRF 16150CT	UNIT			
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	30	40	50	60	80	100	150	V			
Maximum RMS Voltage	V <sub>RMS</sub>	21	28	35	42	56	70	105	V			
Maximum DC Blocking Voltage	V <sub>DC</sub>	30	40	50	60	80	100	150	V			
Maximum Average Forward Rectified Current ( See Fig.1) @T <sub>c</sub> =95 °C	I <sub>(AV)</sub>	16						A				
Peak Forward Surge Current 8.3ms Single Half Sine-Wave	I <sub>FSM</sub>	150						A				
Super Imposed on Rated Load (JEDEC Method)												
Peak Forward Voltage at 8.0A DC(Note1)	V <sub>F</sub>	0.55		0.70		0.85		0.95	V			
Maximum DC Reverse Current @T <sub>j</sub> =25°C at Rated DC Bolcking Voltage @T <sub>j</sub> =100°C	I <sub>R</sub>	1.0 50						mA				
Typical Junction Capacitance (Note2)	C <sub>J</sub>	350						pF				
Typical Thermal Resistance (Note3)	R <sub>θJC</sub>	2.5						°C/W				
Operating Temperature Range	T <sub>J</sub>	-55 to +125						°C				
Storage Temperature Range	T <sub>STG</sub>	-55 to +150						°C				
NOTES:1.300us pulse width,2% duty cycle. 2.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC. 3.Thermal resistance junction to case.												

# RATING AND CHARACTERISTIC CURVES

## SRF1630CT thru SRF16150CT

FIG. 1 – FORWARD CURRENT DERATING CURVE

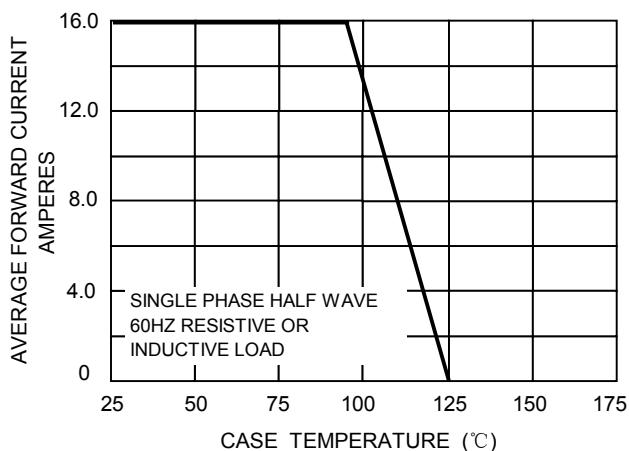


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

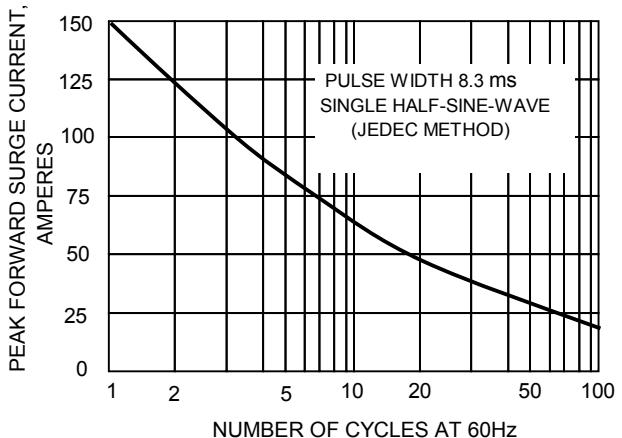


FIG.3-TYPICAL REVERSE CHARACTERISTICS

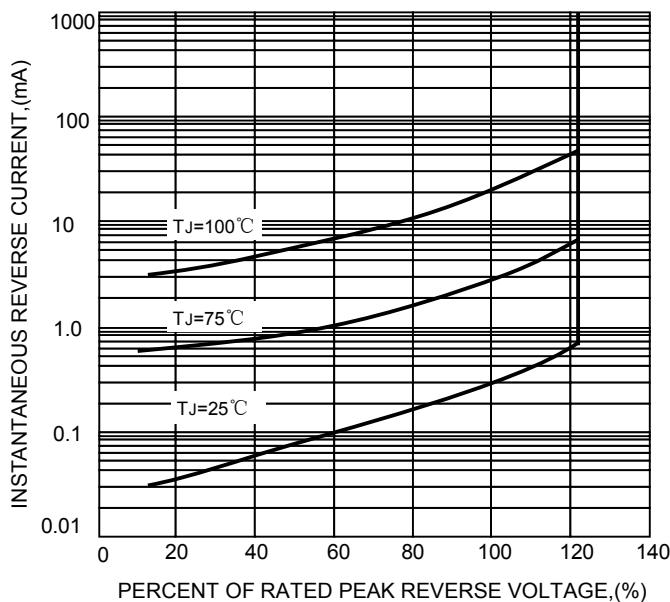


FIG.4-TYPICAL FORWARD CHARACTERISTICS

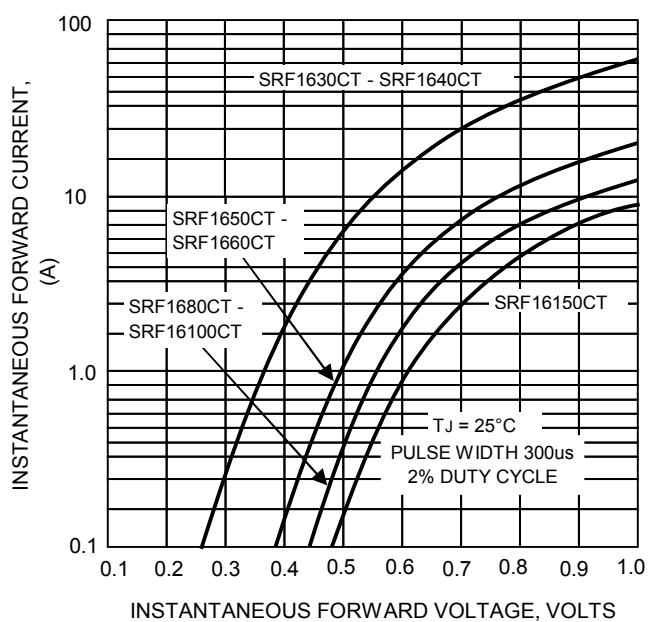
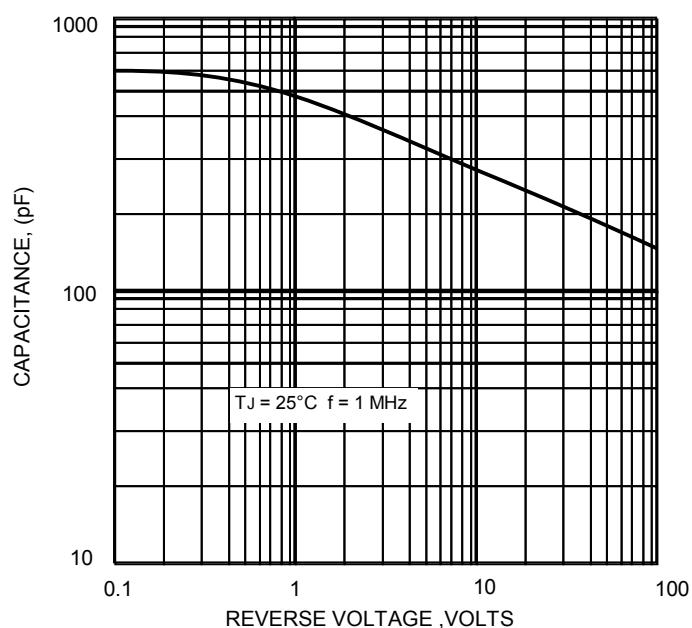


FIG.5 – TYPICAL JUNCTION CAPACITANCE





# MBR1630CT thru MBR16150CT

SCHOTTKY BARRIER RECTIFIERS	REVERSE VOLTAGE - 30 to 150Volts FORWARD CURRENT - 16.0 Amperes																																																																																																													
<b>FEATURES</b> <ul style="list-style-type: none"> <li>• Metal of silicon rectifier , majority carrier conduction</li> <li>• Guard ring for transient protection</li> <li>• Low power loss,high efficiency</li> <li>• High current capability,low VF</li> <li>• High surge capacity</li> <li>• Plastic package has UL flammability classification 94V-0</li> <li>• For use in low voltage,high frequency inverters,free wheeling, and polarity protection applications</li> </ul>	<p><b>TO-220AB</b></p> <p>Dimensions in inches and (millimeters)</p> <p>The diagram shows the physical dimensions of a TO-220AB package. It includes top and side views with various dimension lines. Key dimensions include:      - Top view: Total width = .187(4.7) mm, Case thickness = .148(3.8) mm, Lead thickness = .055(1.4) mm, Lead height = .047(1.2) mm.      - Side view: Total height = .610(15.5) mm, Body height = .583(14.8) mm, Lead length = .157(4.0) mm, Lead spread = .583(14.8) mm, Lead width = .531(13.5) mm, Lead gap = .024(0.6) mm, Lead thickness = .012(0.3) mm, and Lead bottom thickness = .126(3.2) mm.      - Other: Case thickness = .108(2.75) mm, Guard ring width = .413(10.5) mm, Guard ring height = .374(9.5) mm, and Lead height = .270(6.9) mm.</p>																																																																																																													
<b>MECHANICAL DATA</b> <ul style="list-style-type: none"> <li>• Case: TO-220AB molded plastic</li> <li>• Polarity: As marked on the body</li> <li>• Weight: 0.08ounces,2.24 grams</li> <li>• Mounting position :Any</li> </ul>																																																																																																														
<b>MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS</b> <p>Rating at 25°C ambient temperature unless otherwise specified.</p> <p>Single phase, half wave ,60Hz, resistive or inductive load.</p> <p>For capacitive load, derate current by 20%</p>																																																																																																														
<table border="1"> <thead> <tr> <th>CHARACTERISTICS</th> <th>SYMBOL</th> <th>MBR 1630CT</th> <th>MBR 1640CT</th> <th>MBR 1650CT</th> <th>MBR 1660CT</th> <th>MBR 1680CT</th> <th>MBR 16100CT</th> <th>MBR 16150CT</th> <th>UNIT</th> </tr> </thead> <tbody> <tr> <td>Maximum Recurrent Peak Reverse Voltage</td> <td>V<sub>RRM</sub></td> <td>30</td> <td>40</td> <td>50</td> <td>60</td> <td>80</td> <td>100</td> <td>150</td> <td>V</td> </tr> <tr> <td>Maximum RMS Voltage</td> <td>V<sub>RMS</sub></td> <td>21</td> <td>28</td> <td>35</td> <td>42</td> <td>56</td> <td>70</td> <td>105</td> <td>V</td> </tr> <tr> <td>Maximum DC Blocking Voltage</td> <td>V<sub>DC</sub></td> <td>30</td> <td>40</td> <td>50</td> <td>60</td> <td>80</td> <td>100</td> <td>150</td> <td>V</td> </tr> <tr> <td>Maximum Average Forward Rectified Current ( See Fig.1)</td> <td>I<sub>(AV)</sub></td> <td colspan="6">16.0</td> <td>A</td> </tr> <tr> <td>Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)</td> <td>I<sub>FSM</sub></td> <td colspan="6">150</td> <td>A</td> </tr> <tr> <td>Peak Forward Voltage (Note1) IF=8A @T<sub>J</sub>=25°C IF=8A @T<sub>J</sub>=125°C IF=16A @T<sub>J</sub>=25°C IF=16A @T<sub>J</sub>=125°C</td> <td>V<sub>F</sub></td> <td>0.84 0.57 0.72 -</td> <td>0.75 0.65 - -</td> <td>0.85 0.75 0.95 0.85</td> <td>1.05 0.92 - -</td> <td></td> <td>V</td> </tr> <tr> <td>Maximum DC Reverse Current @T<sub>J</sub>=25°C at Rated DC Bolcking Voltage @T<sub>J</sub>=125°C</td> <td>I<sub>R</sub></td> <td colspan="2">0.3 10</td> <td colspan="2">0.1 5.0</td> <td colspan="2">mA</td> </tr> <tr> <td>Typical Junction Capacitance (Note2)</td> <td>C<sub>J</sub></td> <td colspan="2">400</td> <td colspan="2" rowspan="4">200</td> <td colspan="2" rowspan="4">pF</td> </tr> <tr> <td>Typical Thermal Resistance (Note3)</td> <td>R<sub>θJC</sub></td> <td colspan="6">3.0</td> <td>°C/W</td> </tr> <tr> <td>Operating Temperature Range</td> <td>T<sub>J</sub></td> <td colspan="6">-55 to +150</td> <td>°C</td> </tr> <tr> <td>Storage Temperature Range</td> <td>T<sub>STG</sub></td> <td colspan="6">-55 to +175</td> <td>°C</td> </tr> </tbody> </table>	CHARACTERISTICS	SYMBOL	MBR 1630CT	MBR 1640CT	MBR 1650CT	MBR 1660CT	MBR 1680CT	MBR 16100CT	MBR 16150CT	UNIT	Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	30	40	50	60	80	100	150	V	Maximum RMS Voltage	V <sub>RMS</sub>	21	28	35	42	56	70	105	V	Maximum DC Blocking Voltage	V <sub>DC</sub>	30	40	50	60	80	100	150	V	Maximum Average Forward Rectified Current ( See Fig.1)	I <sub>(AV)</sub>	16.0						A	Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	150						A	Peak Forward Voltage (Note1) IF=8A @T <sub>J</sub> =25°C IF=8A @T <sub>J</sub> =125°C IF=16A @T <sub>J</sub> =25°C IF=16A @T <sub>J</sub> =125°C	V <sub>F</sub>	0.84 0.57 0.72 -	0.75 0.65 - -	0.85 0.75 0.95 0.85	1.05 0.92 - -		V	Maximum DC Reverse Current @T <sub>J</sub> =25°C at Rated DC Bolcking Voltage @T <sub>J</sub> =125°C	I <sub>R</sub>	0.3 10		0.1 5.0		mA		Typical Junction Capacitance (Note2)	C <sub>J</sub>	400		200		pF		Typical Thermal Resistance (Note3)	R <sub>θJC</sub>	3.0						°C/W	Operating Temperature Range	T <sub>J</sub>	-55 to +150						°C	Storage Temperature Range	T <sub>STG</sub>	-55 to +175						°C	
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**RATING AND CHARACTERISTIC CURVES**  
**MBR1630CT thru MBR16150CT**

**HY**

FIG. 1 – FORWARD CURRENT DERATING CURVE

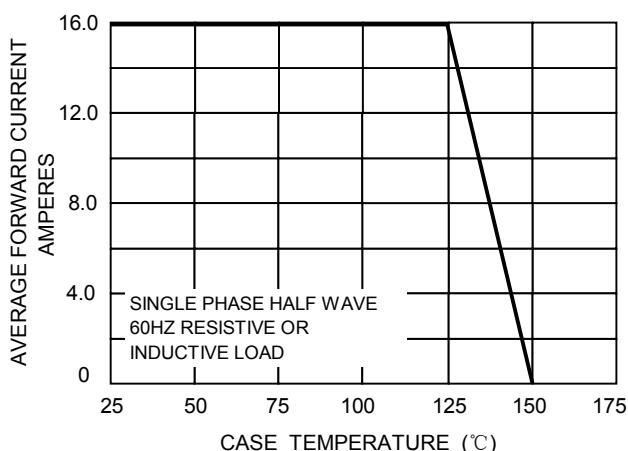


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

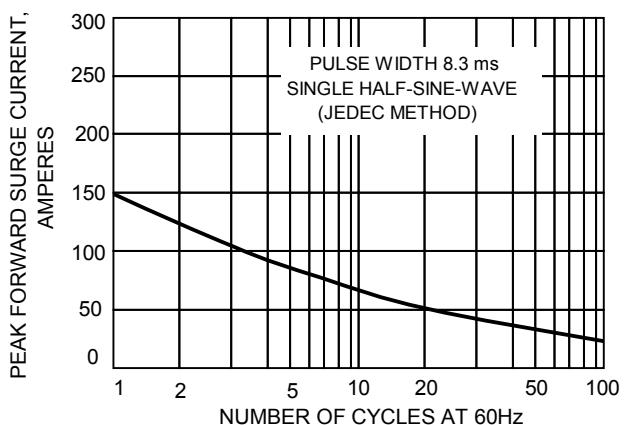


FIG.3-TYPICAL REVER CHARACTERISTICS

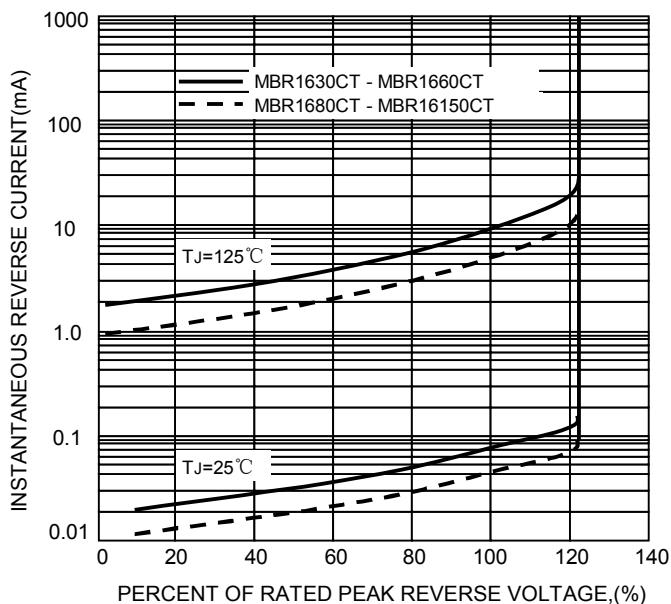


FIG.4-TYPICAL FORWARD CHARACTERISTICS

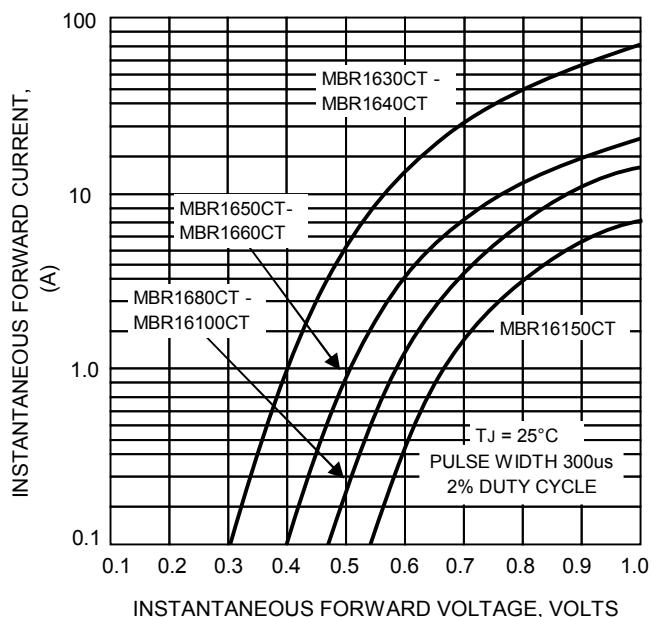
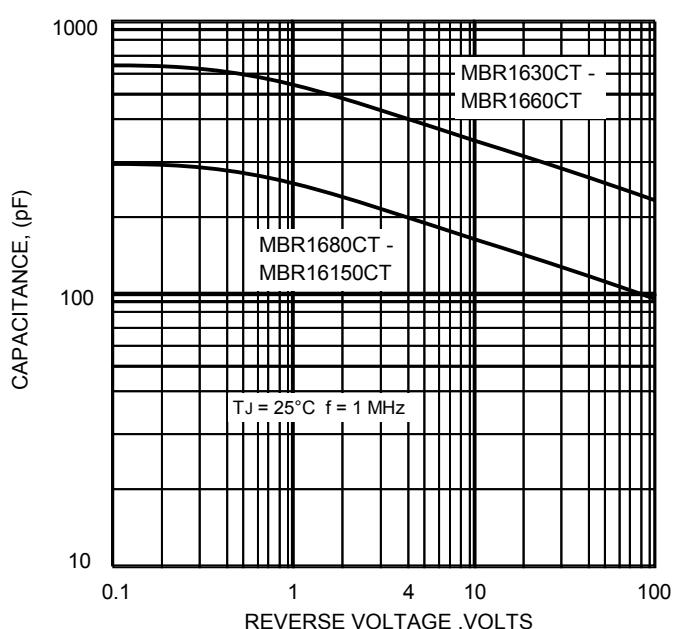


FIG.5 – TYPICAL JUNCTION CAPACITANCE





# MBRF1630CT thru MBRF16150CT

SCHOTTKY BARRIER RECTIFIERS	REVERSE VOLTAGE - 30 to 150Volts FORWARD CURRENT - 16.0 Amperes										
<b>FEATURES</b> <ul style="list-style-type: none"> <li>• Metal of silicon rectifier , majority carrier conduction</li> <li>• Guard ring for transient protection</li> <li>• Low power loss,high efficiency</li> <li>• High current capability,low VF</li> <li>• High surge capacity</li> <li>• Plastic package has UL flammability classification 94V-0</li> <li>• For use in low voltage,high frequency inverters,free wheeling, and polarity protection applications</li> </ul>	<p style="text-align: center;"><b>ITO-220AB</b></p> <p>Dimensions in inches and (millimeters)</p>										
<b>MECHANICAL DATA</b> <ul style="list-style-type: none"> <li>• Case: ITO-220AB molded plastic</li> <li>• Polarity: As marked on the body</li> <li>• Weight: 0.08ounces,2.24 grams</li> <li>• Mounting position :Any</li> </ul>											
<b>MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS</b>											
Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave ,60Hz, resistive or inductive load. For capacitive load, derate current by 20%											
CHARACTERISTICS	SYMBOL	MBRF 1630CT	MBRF 1640CT	MBRF 1650CT	MBRF 1660CT	MBRF 1680CT	MBRF 16100CT	MBRF 16150CT	UNIT		
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	30	40	50	60	80	100	150	V		
Maximum RMS Voltage	V <sub>RMS</sub>	21	28	35	42	56	70	105	V		
Maximum DC Blocking Voltage	V <sub>DC</sub>	30	40	50	60	80	100	150	V		
Maximum Average Forward Rectified Current ( See Fig.1)	I <sub>(AV)</sub>	16.0						A			
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	150						A			
Peak Forward Voltage (Note1) IF=8A @T <sub>J</sub> =25°C IF=8A @T <sub>J</sub> =125°C IF=16A @T <sub>J</sub> =25°C IF=16A @T <sub>J</sub> =125°C	V <sub>F</sub>	0.84 0.57 0.72 -	0.75 0.65 - -	0.85 0.75 0.95 0.85	1.05 0.92 - -				V		
Maximum DC Reverse Current @T <sub>J</sub> =25°C at Rated DC Bolcking Voltage @T <sub>J</sub> =125°C	I <sub>R</sub>	0.3 10		0.1 5					mA		
Typical Junction Capacitance (Note2)	C <sub>J</sub>	400		200					pF		
Typical Thermal Resistance (Note3)	R <sub>θJC</sub>	3.0						°C/W			
Operating Temperature Range	T <sub>J</sub>	-55 to +150						°C			
Storage Temperature Range	T <sub>STG</sub>	-55 to +175						°C			
NOTES:1.300us pulse width,2% duty cycle. 2.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC. 3.Thermal resistance junction to case.											

# RATING AND CHARACTERISTIC CURVES

## MBRF1630CT thru MBRF16150CT

**HY**

FIG. 1 – FORWARD CURRENT DERATING CURVE

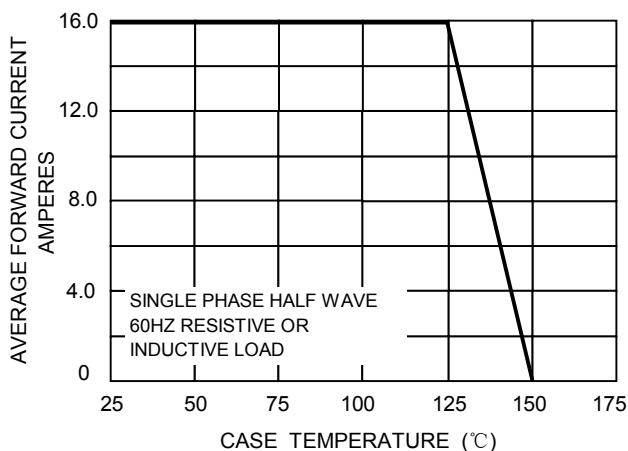


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

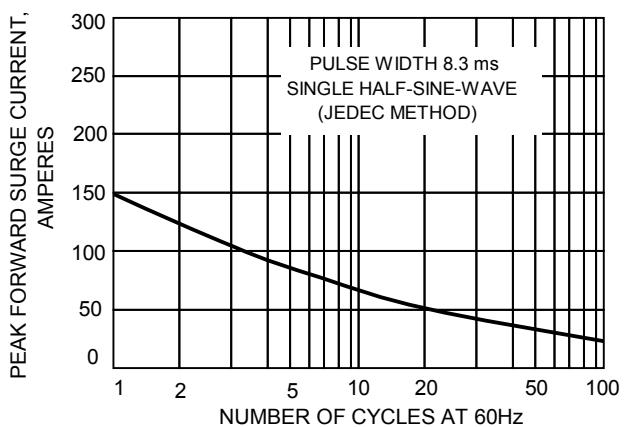


FIG. 3-TYPICAL REVER CHARACTERISTICS

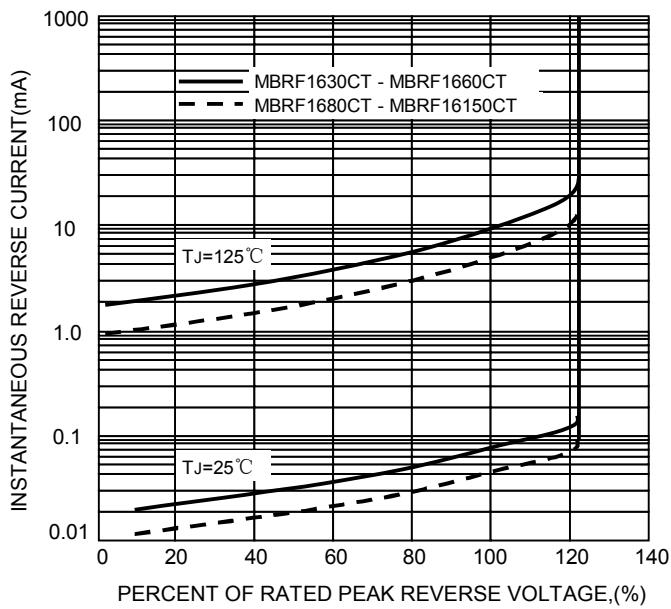


FIG.4-TYPICAL FORWARD CHARACTERISTICS

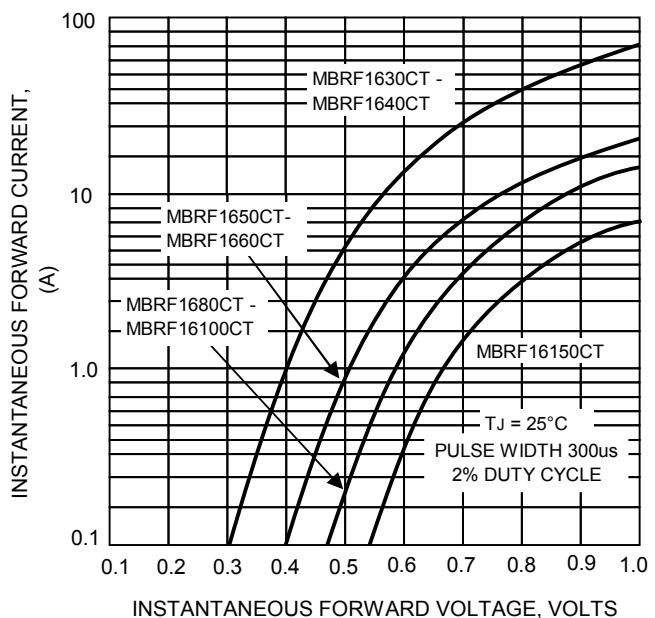
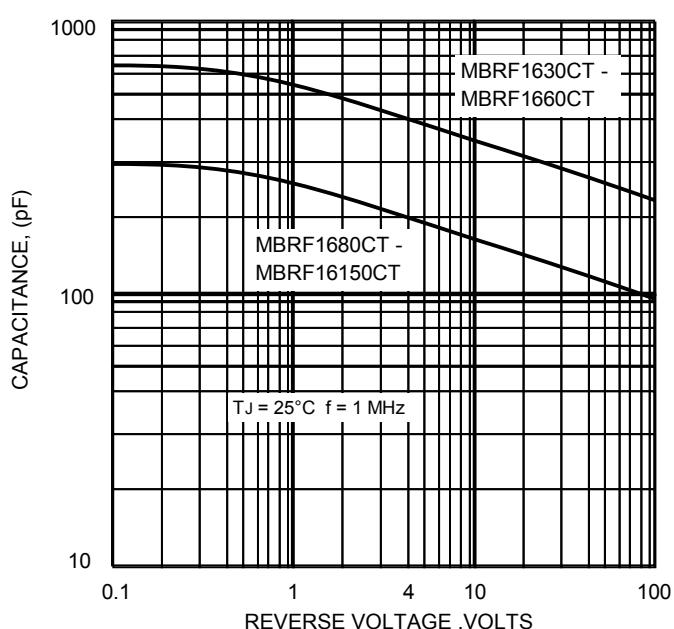
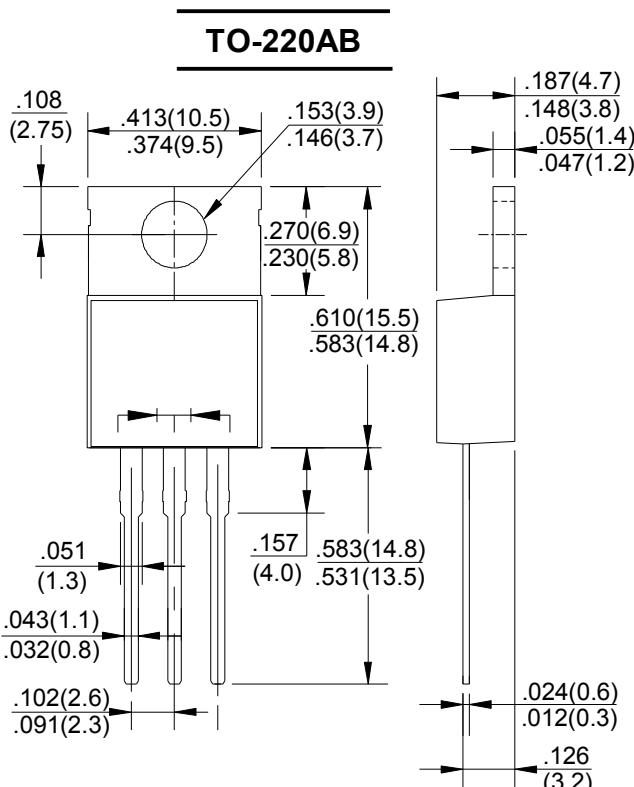
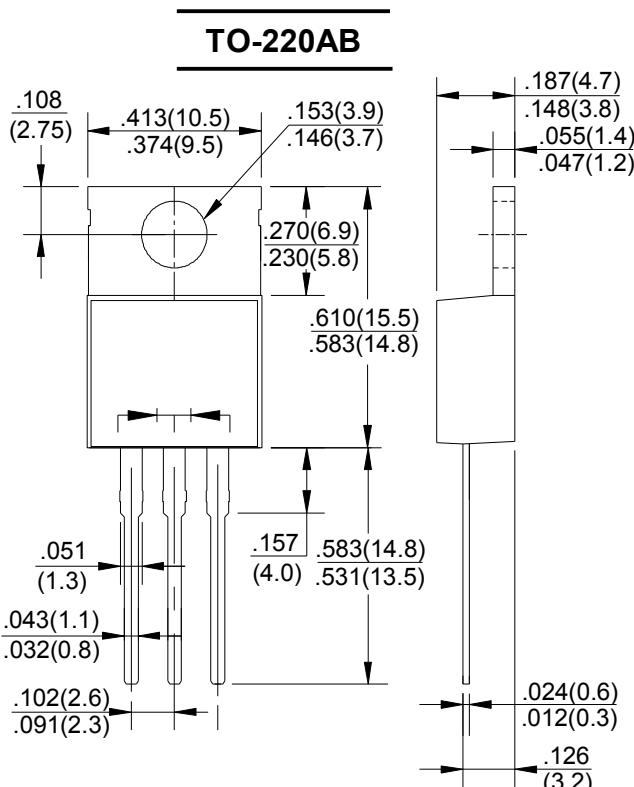


FIG.5 – TYPICAL JUNCTION CAPACITANCE



SCHOTTKY BARRIER RECTIFIERS	REVERSE VOLTAGE - 30 to 150Volts FORWARD CURRENT - 20.0 Amperes								
<b>FEATURES</b>	 <p><b>TO-220AB</b></p> <p>Dimensions in inches and (millimeters)</p>								
<ul style="list-style-type: none"> <li>● Metal of silicon rectifier , majority carrier conduction</li> <li>● Guard ring for transient protection</li> <li>● Low power loss,high efficiency</li> <li>● High current capability,low VF</li> <li>● High surge capacity</li> <li>● Plastic package has UL flammability classification 94V-0</li> <li>● For use in low voltage,high frequency inverters,free wheeling, and polarity protection applications</li> </ul>									
<b>MECHANICAL DATA</b>									
<ul style="list-style-type: none"> <li>● Case: TO-220AB molded plastic</li> <li>● Polarity: As marked on the body</li> <li>● Weight: 0.08ounces,2.24 grams</li> <li>● Mounting position :Any</li> </ul>	 <p><b>TO-220AB</b></p> <p>Dimensions in inches and (millimeters)</p>								
<b>MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS</b>									
Rating at 25°C ambient temperature unless otherwise specified.									
Single phase, half wave ,60Hz, resistive or inductive load.									
For capacitive load, derate current by 20%									
CHARACTERISTICS	SYMBOL	SR 2030CT	SR 2040CT	SR 2050CT	SR 2060CT	SR 2080CT	SR 20100CT	SR 20150CT	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	30	40	50	60	80	100	150	V
Maximum RMS Voltage	V <sub>RMS</sub>	21	28	35	42	56	70	105	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	30	40	50	60	80	100	150	V
Maximum Average Forward Rectified Current ( See Fig.1) @T <sub>c</sub> =95 °C	I(AV)					20			A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>					250			A
Peak Forward Voltage at 10.0A DC(Note1)	V <sub>F</sub>	0.55		0.70		0.85		0.95	V
Maximum DC Reverse Current @T <sub>j</sub> =25°C at Rated DC Bolcking Voltage @T <sub>j</sub> =100°C	I <sub>R</sub>				1.0				mA
					50				
Typical Junction Capacitance (Note2)	C <sub>J</sub>			600					pF
Typical Thermal Resistance (Note3)	R <sub>θJC</sub>			2.0					°C/W
Operating Temperature Range	T <sub>J</sub>			-55to+125					°C
Storage Temperature Range	T <sub>STG</sub>			-55to+150					°C
NOTES:1.300us pulse width,2% duty cycle.									
2.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.									
3.Thermal resistance junction to case.									

# RATING AND CHARACTERISTIC CURVES

## SR2030CT thru SR20150CT

**HY**

FIG. 1 – FORWARD CURRENT DERATING CURVE

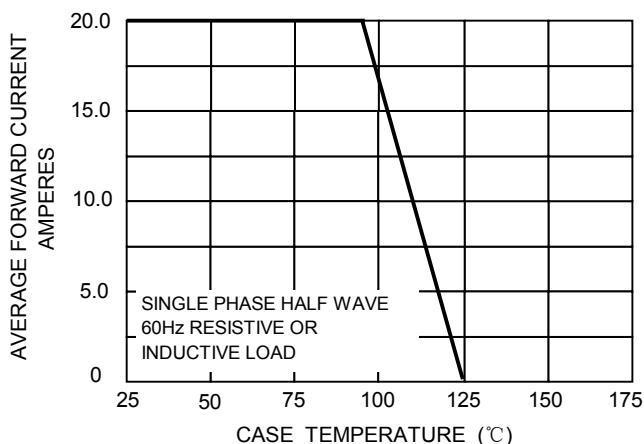


FIG.3-TYPICAL REVER CHARACTERISTICS

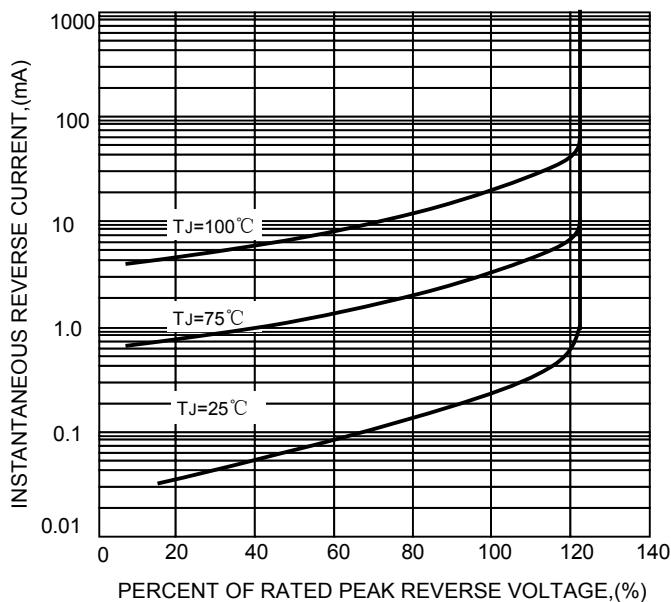


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

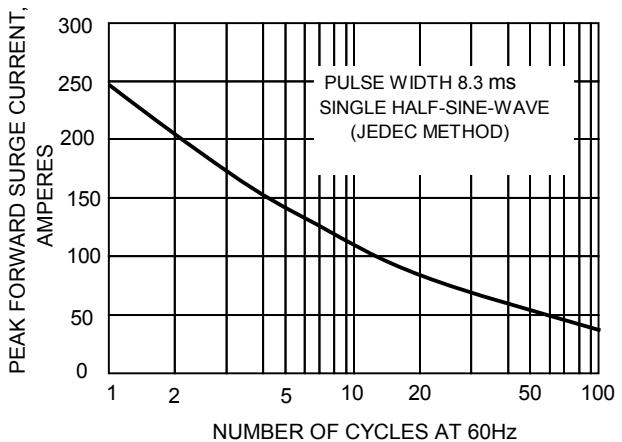


FIG.4-TYPICAL FORWARD CHARACTERISTICS

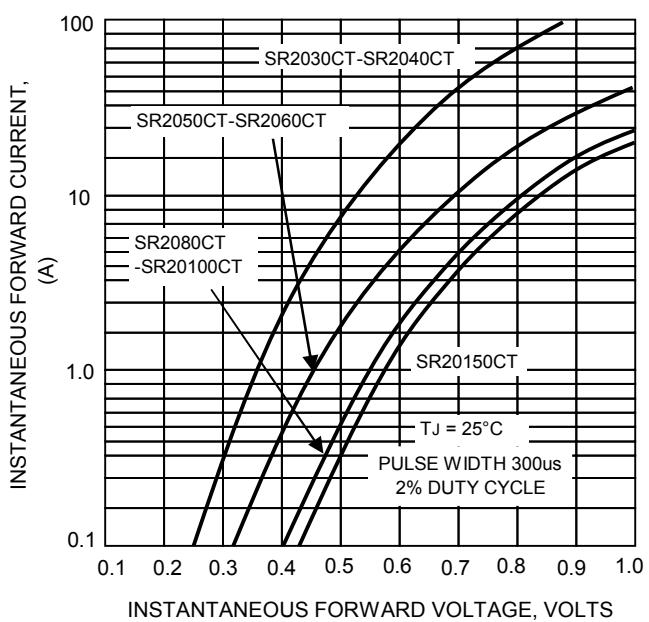
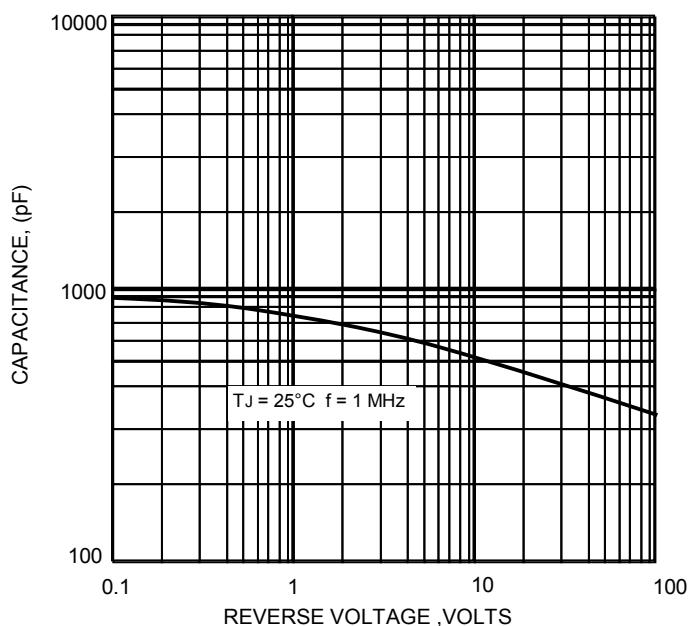
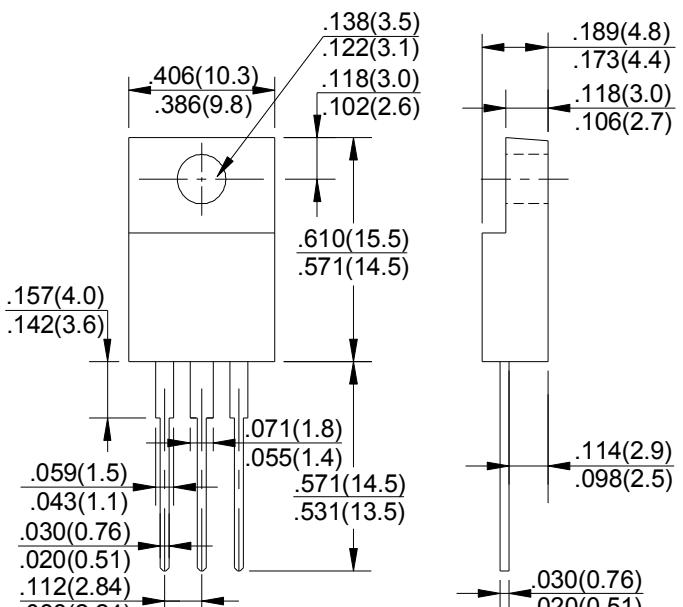


FIG.5 – TYPICAL JUNCTION CAPACITANCE



SCHOTTKY BARRIER RECTIFIERS	REVERSE VOLTAGE - 30 to 100Volts FORWARD CURRENT - 20.0 Amperes								
<b>FEATURES</b>	<b>ITO-220AB</b>								
<ul style="list-style-type: none"> <li>● Metal of silicon rectifier , majority carrier conduction</li> <li>● Guard ring for transient protection</li> <li>● Low power loss,high efficiency</li> <li>● High current capability,low VF</li> <li>● High surge capacity</li> <li>● Plastic package has UL flammability classification 94V-0</li> <li>● For use in low voltage,high frequency inverters,free wheeling, and polarity protection applications</li> </ul>	 <p>The drawing shows the physical dimensions of the ITO-220AB package. The top view indicates a total width of .406(10.3) and a height of .386(9.8). The side view shows a total height of .610(15.5) and a base thickness of .571(14.5). Various internal lead and body dimensions are also detailed.</p>								
<b>MECHANICAL DATA</b>	Dimensions in inches and (millimeters)								
<ul style="list-style-type: none"> <li>● Case: ITO-220AB molded plastic</li> <li>● Polarity: As marked on the body</li> <li>● Weight: 0.08ounces,2.24 grams</li> <li>● Mounting position :Any</li> </ul>									
<b>MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS</b>									
Rating at 25°C ambient temperature unless otherwise specified.									
Single phase, half wave ,60Hz, resistive or inductive load.									
For capacitive load, derate current by 20%									
CHARACTERISTICS	SYMBOL	SRF 2030CT	SRF 2040CT	SRF 2050CT	SRF 2060CT	SRF 2080CT	SRF 20100CT	SRF 20150CT	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	30	40	50	60	80	100	150	V
Maximum RMS Voltage	V <sub>RMS</sub>	21	28	35	42	56	70	105	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	30	40	50	60	80	100	150	V
Maximum Average Forward Rectified Current ( See Fig.1) @T <sub>c</sub> =95 °C	I(AV)					20			A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>					250			A
Peak Forward Voltage at 10.0A DC(Note1)	V <sub>F</sub>	0.55		0.70		0.85		0.95	V
Maximum DC Reverse Current @T <sub>j</sub> =25°C at Rated DC Bolcking Voltage @T <sub>j</sub> =100°C	I <sub>R</sub>				1.0				mA
					50				
Typical Junction Capacitance (Note2)	C <sub>J</sub>				600				pF
Typical Thermal Resistance (Note3)	R <sub>θJC</sub>				2.0				°C/W
Operating Temperature Range	T <sub>J</sub>				-55to+125				°C
Storage Temperature Range	T <sub>STG</sub>				-55to+150				°C
NOTES:1.300us pulse width,2% duty cycle.									
2.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.									
3.Thermal resistance junction to case.									

# RATING AND CHARACTERISTIC CURVES

## SRF2030CT thru SRF20150CT

**HY**

FIG. 1 – FORWARD CURRENT DERATING CURVE

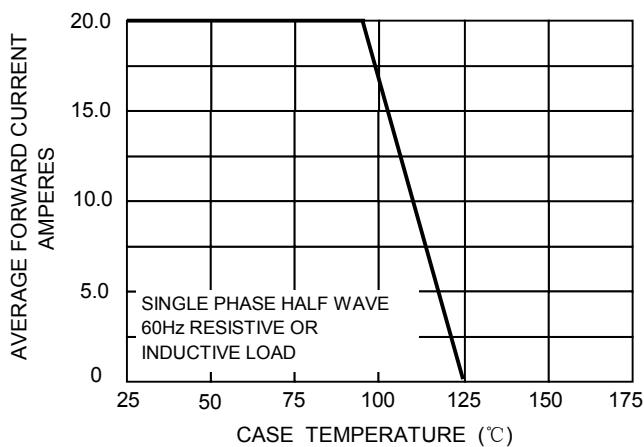


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

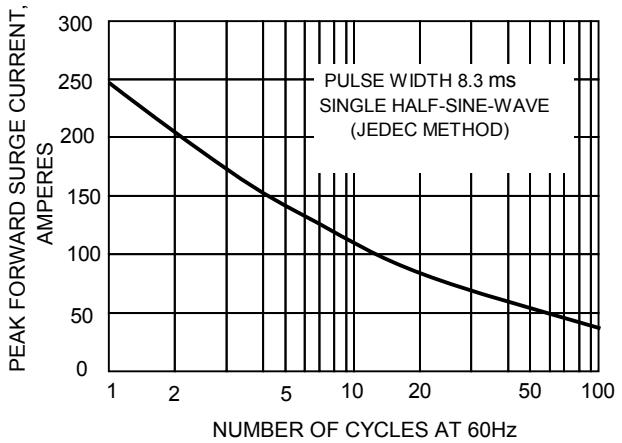


FIG.3-TYPICAL REVER CHARACTERISTICS

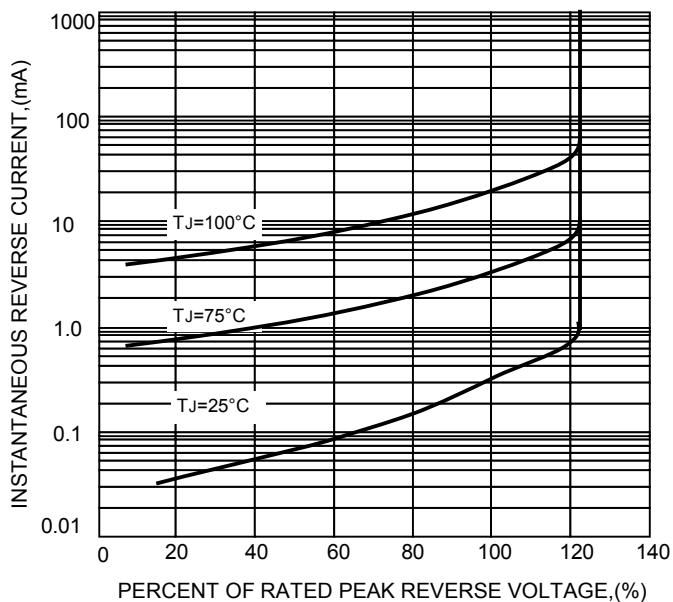


FIG.4-TYPICAL FORWARD CHARACTERISTICS

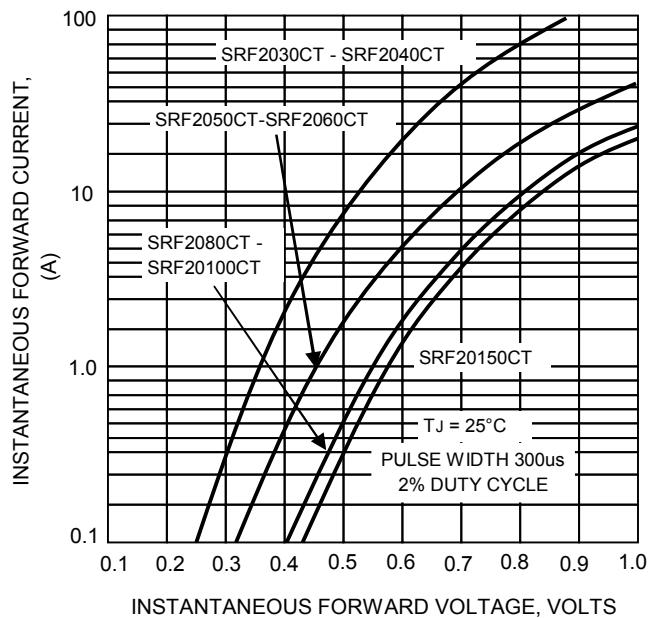
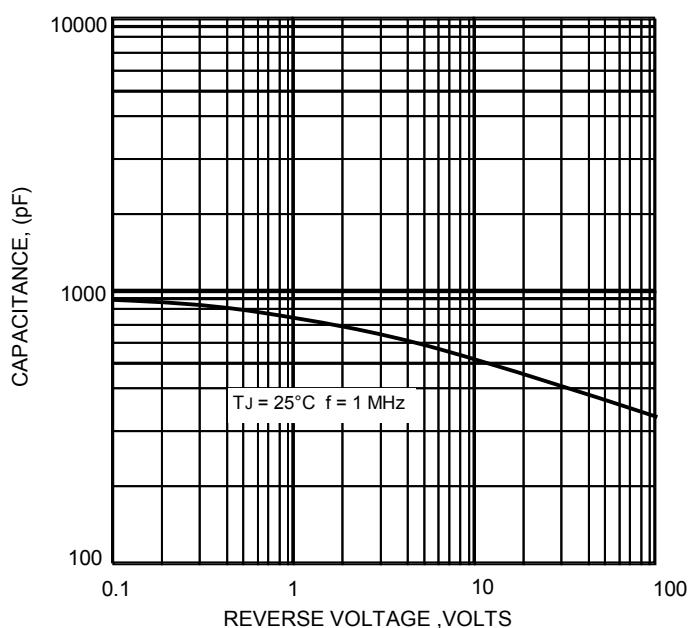


FIG.5 – TYPICAL JUNCTION CAPACITANCE





# MBR2030CT thru MBR20150CT

SCHOTTKY BARRIER RECTIFIERS	REVERSE VOLTAGE - 30 to 150Volts FORWARD CURRENT - 20.0 Amperes																																																																																																																		
<b>FEATURES</b> <ul style="list-style-type: none"> <li>• Metal of silicon rectifier , majority carrier conduction</li> <li>• Guard ring for transient protection</li> <li>• Low power loss,high efficiency</li> <li>• High current capability,low VF</li> <li>• High surge capacity</li> <li>• Plastic package has UL flammability classification 94V-0</li> <li>• For use in low voltage,high frequency inverters,free wheeling, and polarity protection applications</li> </ul>	<p>The diagram shows the physical dimensions of the TO-220AB package. Key dimensions include:      - Case height: .108 (2.75)      - Lead spacing: .413(10.5)      - Lead thickness: .374(9.5)      - Lead height: .153(3.9) / .146(3.7)      - Lead width: .270(6.9) / .230(5.8)      - Lead length: .610(15.5) / .583(14.8)      - Lead pitch: .157 (4.0) / .531(13.5)      - Lead thickness: .051 (1.3)      - Lead height: .043(1.1) / .032(0.8)      - Lead width: .102(2.6) / .091(2.3)      - Lead length: .024(0.6) / .012(0.3)      - Lead pitch: .126 (3.2)      Dimensions in inches and (millimeters)</p>																																																																																																																		
<b>MECHANICAL DATA</b> <ul style="list-style-type: none"> <li>• Case: TO-220AB molded plastic</li> <li>• Polarity: As marked on the body</li> <li>• Weight: 0.08ounces,2.24 grams</li> <li>• Mounting position :Any</li> </ul>																																																																																																																			
<b>MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS</b> <p>Rating at 25°C ambient temperature unless otherwise specified.      Single phase, half wave ,60Hz, resistive or inductive load.      For capacitive load, derate current by 20%</p>	<table border="1"> <thead> <tr> <th>CHARACTERISTICS</th> <th>SYMBOL</th> <th>MBR 2030CT</th> <th>MBR 2040CT</th> <th>MBR 2050CT</th> <th>MBR 2060CT</th> <th>MBR 2080CT</th> <th>MBR 20100CT</th> <th>MBR 20150CT</th> <th>UNIT</th> </tr> </thead> <tbody> <tr> <td>Maximum Recurrent Peak Reverse Voltage</td> <td>V<sub>RRM</sub></td> <td>30</td> <td>40</td> <td>50</td> <td>60</td> <td>80</td> <td>100</td> <td>150</td> <td>V</td> </tr> <tr> <td>Maximum RMS Voltage</td> <td>V<sub>RMS</sub></td> <td>21</td> <td>28</td> <td>35</td> <td>42</td> <td>56</td> <td>70</td> <td>105</td> <td>V</td> </tr> <tr> <td>Maximum DC Blocking Voltage</td> <td>V<sub>DC</sub></td> <td>30</td> <td>40</td> <td>50</td> <td>60</td> <td>80</td> <td>100</td> <td>150</td> <td>V</td> </tr> <tr> <td>Maximum Average Forward Rectified Current ( See Fig.1)</td> <td>I<sub>(AV)</sub></td> <td colspan="6">20.0</td> <td>A</td> </tr> <tr> <td>Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)</td> <td>I<sub>FSM</sub></td> <td colspan="6">150</td> <td>A</td> </tr> <tr> <td>Peak Forward Voltage (Note1) IF=10A @T<sub>J</sub>=25°C IF=10A @T<sub>J</sub>=125°C IF=20A @T<sub>J</sub>=25°C IF=20A @T<sub>J</sub>=125°C</td> <td>V<sub>F</sub></td> <td>- 0.57 0.84 0.72</td> <td>0.80 0.70 0.95 0.85</td> <td>0.85 0.75 0.95 0.85</td> <td>0.95 0.85 1.05 0.95</td> <td></td> <td></td> <td>V</td> </tr> <tr> <td>Maximum DC Reverse Current @T<sub>J</sub>=25°C at Rated DC Bolcking Voltage @T<sub>J</sub>=125°C</td> <td>I<sub>R</sub></td> <td>0.1 15</td> <td>0.1 10</td> <td>0.1 7.5</td> <td>0.1 5.0</td> <td></td> <td></td> <td>mA</td> </tr> <tr> <td>Typical Junction Capacitance (Note2)</td> <td>C<sub>J</sub></td> <td>400</td> <td colspan="6">320</td> <td>pF</td> </tr> <tr> <td>Typical Thermal Resistance (Note3)</td> <td>R<sub>θJC</sub></td> <td colspan="2">1.5</td> <td colspan="3" rowspan="3">3.5</td> <td colspan="2">°C/W</td> <td></td> </tr> <tr> <td>Operating Temperature Range</td> <td>T<sub>J</sub></td> <td colspan="6">-55 to +150</td> <td>°C</td> </tr> <tr> <td>Storage Temperature Range</td> <td>T<sub>STG</sub></td> <td colspan="6">-55 to +175</td> <td>°C</td> </tr> </tbody> </table> <p>NOTES:1.300us pulse width,2% duty cycle.      2.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.      3.Thermal resistance junction to case.</p>	CHARACTERISTICS	SYMBOL	MBR 2030CT	MBR 2040CT	MBR 2050CT	MBR 2060CT	MBR 2080CT	MBR 20100CT	MBR 20150CT	UNIT	Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	30	40	50	60	80	100	150	V	Maximum RMS Voltage	V <sub>RMS</sub>	21	28	35	42	56	70	105	V	Maximum DC Blocking Voltage	V <sub>DC</sub>	30	40	50	60	80	100	150	V	Maximum Average Forward Rectified Current ( See Fig.1)	I <sub>(AV)</sub>	20.0						A	Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	150						A	Peak Forward Voltage (Note1) IF=10A @T <sub>J</sub> =25°C IF=10A @T <sub>J</sub> =125°C IF=20A @T <sub>J</sub> =25°C IF=20A @T <sub>J</sub> =125°C	V <sub>F</sub>	- 0.57 0.84 0.72	0.80 0.70 0.95 0.85	0.85 0.75 0.95 0.85	0.95 0.85 1.05 0.95			V	Maximum DC Reverse Current @T <sub>J</sub> =25°C at Rated DC Bolcking Voltage @T <sub>J</sub> =125°C	I <sub>R</sub>	0.1 15	0.1 10	0.1 7.5	0.1 5.0			mA	Typical Junction Capacitance (Note2)	C <sub>J</sub>	400	320						pF	Typical Thermal Resistance (Note3)	R <sub>θJC</sub>	1.5		3.5			°C/W			Operating Temperature Range	T <sub>J</sub>	-55 to +150						°C	Storage Temperature Range	T <sub>STG</sub>	-55 to +175						°C
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# RATING AND CHARACTERISTIC CURVES

## MBR2030CT thru MBR20150CT

**HY**

FIG. 1 – FORWARD CURRENT DERATING CURVE

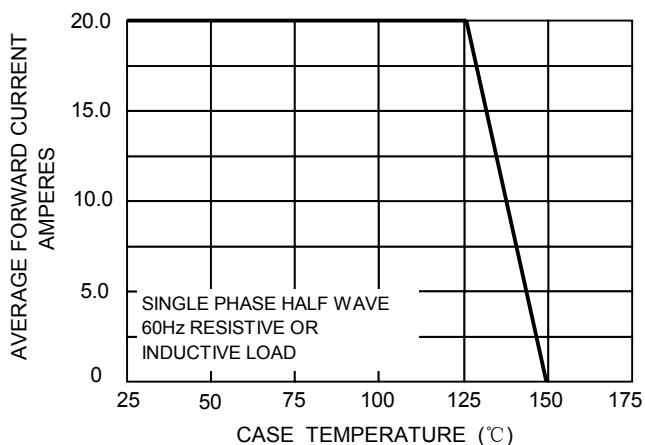


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

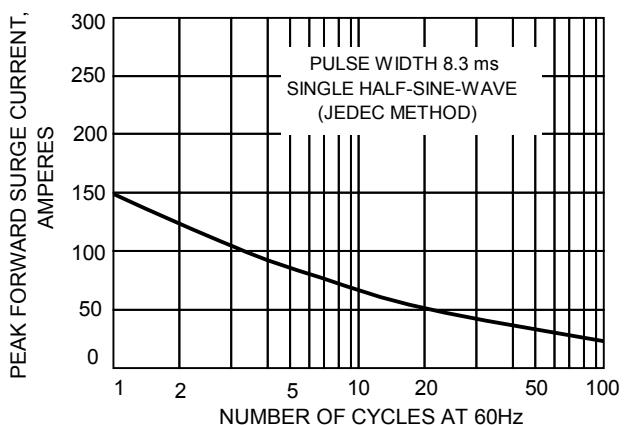


FIG.3-TYPICAL REVER CHARACTERISTICS

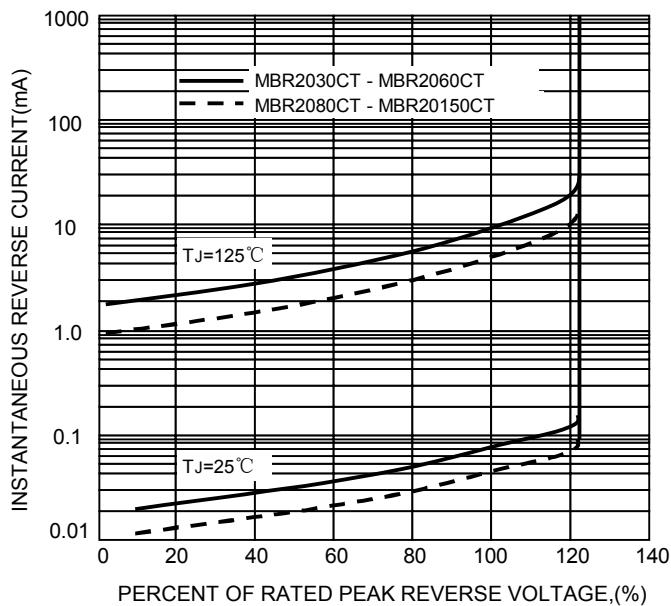


FIG.4-TYPICAL FORWARD CHARACTERISTICS

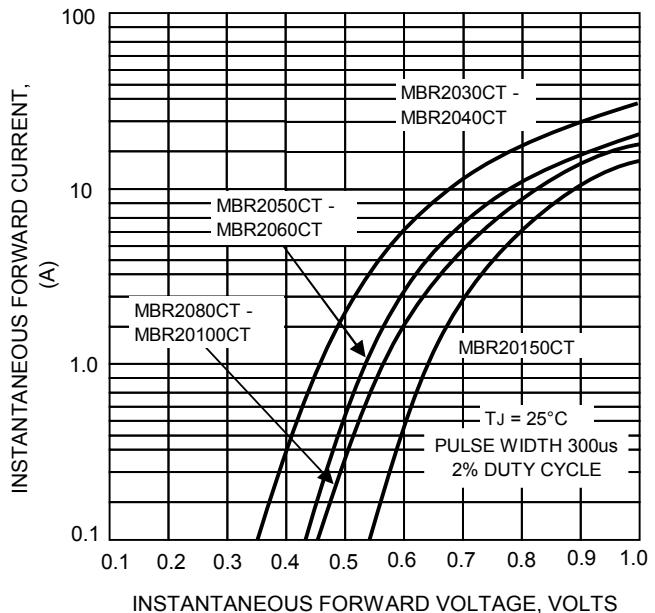
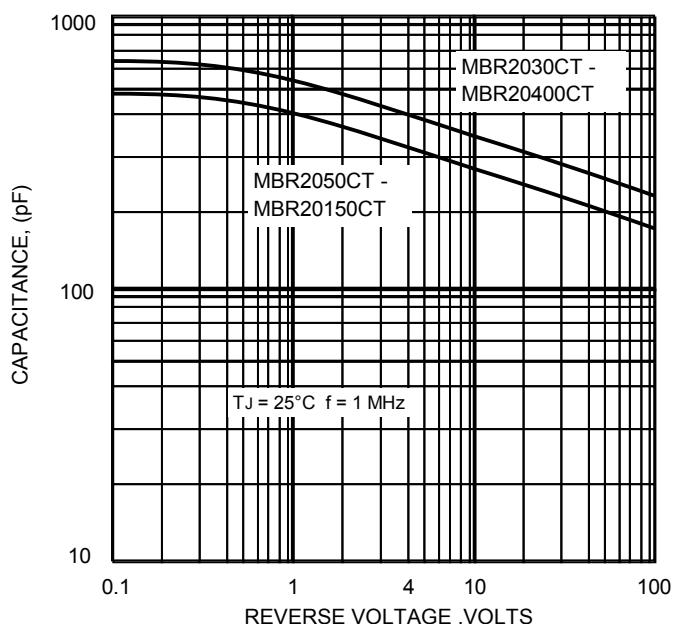


FIG.5 – TYPICAL JUNCTION CAPACITANCE





# MBRF2030CT thru MBRF20150CT

SCHOTTKY BARRIER RECTIFIERS	REVERSE VOLTAGE - 30 to 150Volts FORWARD CURRENT - 20.0 Amperes								
<b>FEATURES</b> <ul style="list-style-type: none"> <li>• Metal of silicon rectifier , majority carrier conduction</li> <li>• Guard ring for transient protection</li> <li>• Low power loss,high efficiency</li> <li>• High current capability,low VF</li> <li>• High surge capacity</li> <li>• Plastic package has UL flammability classification 94V-0</li> <li>• For use in low voltage,high frequency inverters,free wheeling, and polarity protection applications</li> </ul>	<p style="text-align: center;"><b>ITO-220AB</b></p>								
<b>MECHANICAL DATA</b> <ul style="list-style-type: none"> <li>• Case: ITO-220AB molded plastic</li> <li>• Polarity: As marked on the body</li> <li>• Weight: 0.08ounces,2.24 grams</li> <li>• Mounting position :Any</li> </ul>	<p style="text-align: center;">Dimensions in inches and (millimeters)</p>								
<b>MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS</b>									
Rating at 25°C ambient temperature unless otherwise specified.									
Single phase, half wave ,60Hz, resistive or inductive load.									
For capacitive load, derate current by 20%									
CHARACTERISTICS	SYMBOL	MBRF 2030CT	MBRF 2040CT	MBRF 2050CT	MBRF 2060CT	MBRF 2080CT	MBRF 20100CT	MBRF 20150CT	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	30	40	50	60	80	100	150	V
Maximum RMS Voltage	V <sub>RMS</sub>	21	28	35	42	56	70	105	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	30	40	50	60	80	100	150	V
Maximum Average Forward Rectified Current ( See Fig.1)	I <sub>(AV)</sub>	20.0						A	
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	150						A	
Peak Forward Voltage (Note1) IF=10A @T <sub>J</sub> =25°C IF=10A @T <sub>J</sub> =125°C IF=20A @T <sub>J</sub> =25°C IF=20A @T <sub>J</sub> =125°C	V <sub>F</sub>	- 0.57 0.84 0.72	0.80 0.70 0.95 0.85	0.85 0.75 0.95 0.85	0.95 0.85 1.05 0.95				V
Maximum DC Reverse Current @T <sub>J</sub> =25°C at Rated DC Bolcking Voltage @T <sub>J</sub> =125°C	I <sub>R</sub>	0.1 15	0.1 10	0.1 7.5	0.1 5.0				mA
Typical Junction Capacitance (Note2)	C <sub>J</sub>	400		320					pF
Typical Thermal Resistance (Note3)	R <sub>θJC</sub>		1.5		3.5				°C/W
Operating Temperature Range	T <sub>J</sub>		-55 to +150						°C
Storage Temperature Range	T <sub>STG</sub>		-55 to +175						°C
NOTES:1.300us pulse width,2% duty cycle. 2.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC. 3.Thermal resistance junction to case.									

# RATING AND CHARACTERISTIC CURVES

## MBRF2030CT thru MBRF20150CT

**HY**

FIG. 1 – FORWARD CURRENT DERATING CURVE

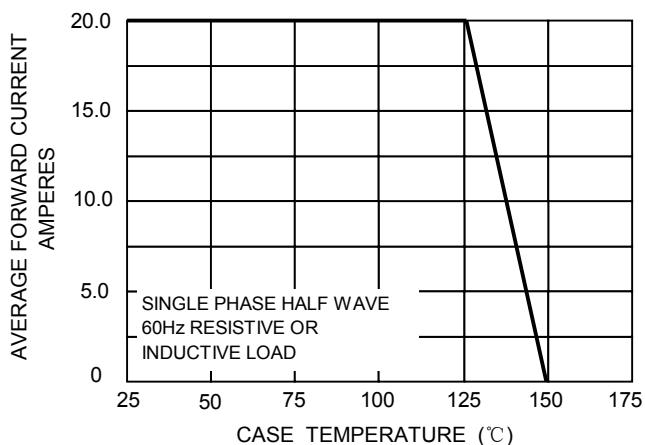


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

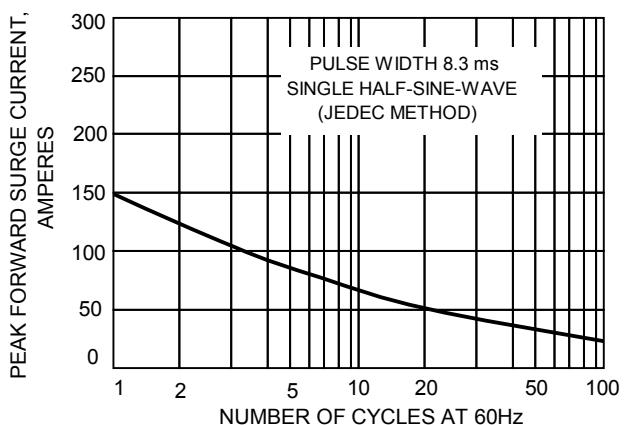


FIG.3-TYPICAL REVER CHARACTERISTICS

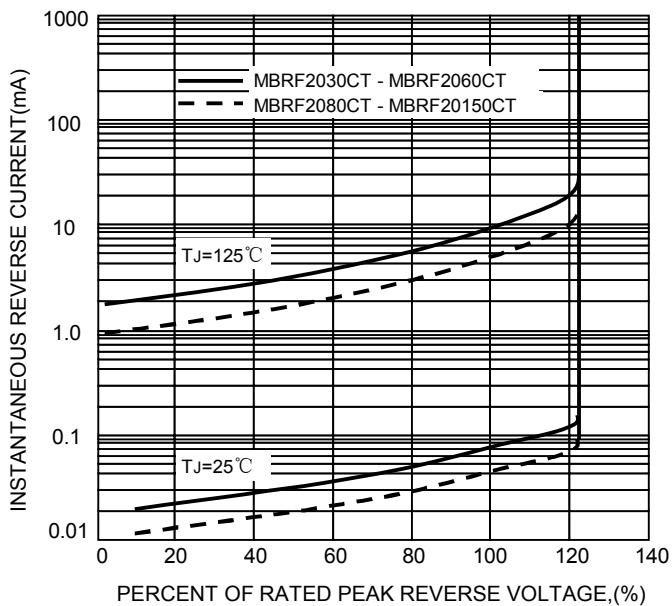


FIG.4-TYPICAL FORWARD CHARACTERISTICS

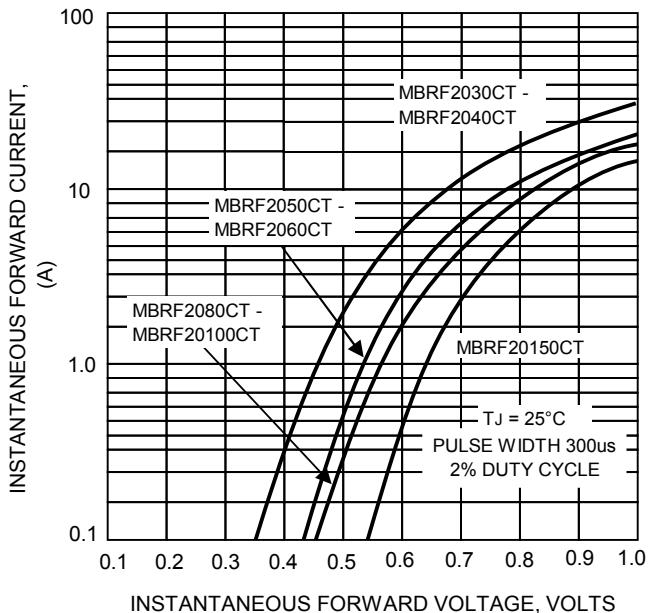
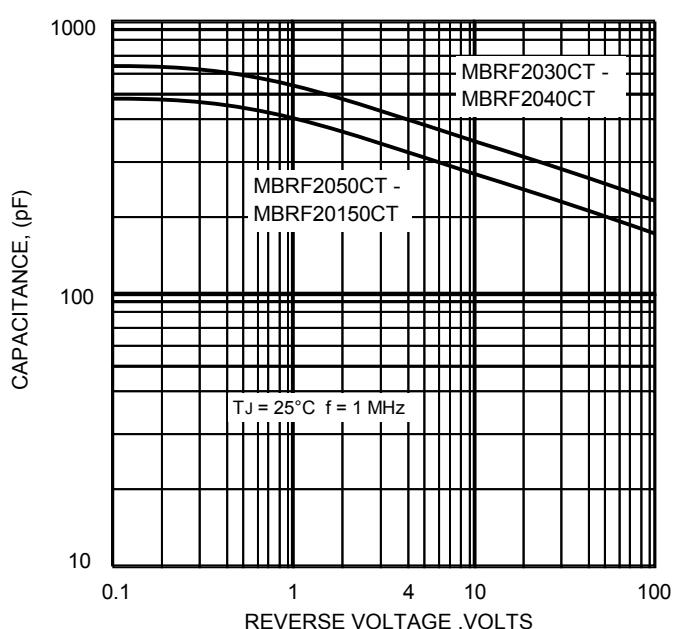
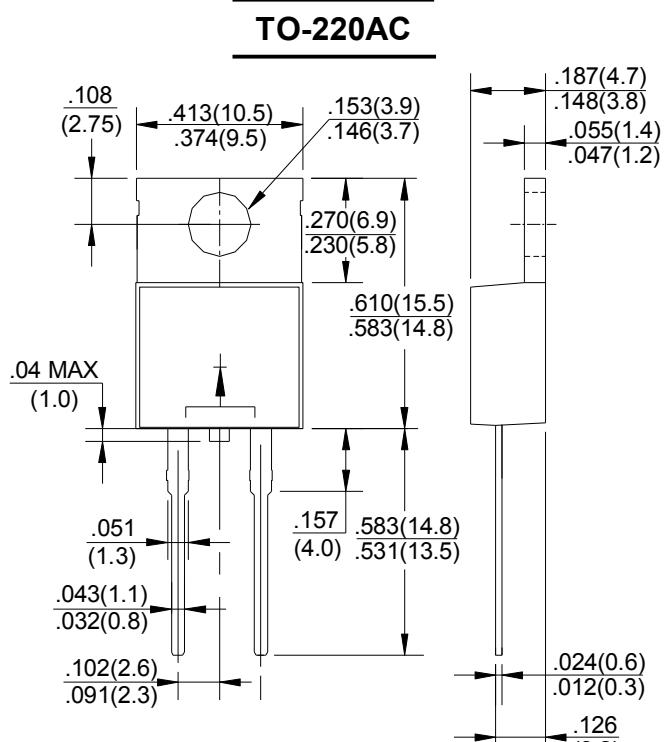


FIG.5 – TYPICAL JUNCTION CAPACITANCE



SCHOTTKY BARRIER RECTIFIERS	REVERSE VOLTAGE - 30 to 60Volts FORWARD CURRENT - 25.0 Amperes											
<b>FEATURES</b>												
<ul style="list-style-type: none"> <li>● Metal of silicon rectifier , majority carrier conduction</li> <li>● Guard ring for transient protection</li> <li>● Low power loss,high efficiency</li> <li>● High current capability,low VF</li> <li>● High surge capacity</li> <li>● Plastic package has UL flammability classification 94V-0</li> <li>● For use in low voltage,high frequency inverters,free wheeling, and polarity protection applications</li> </ul>												
<b>MECHANICAL DATA</b>	 <p>TO-220AC</p> <p>Dimensions in inches and (millimeters)</p>											
<b>MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS</b>												
Rating at 25°C ambient temperature unless otherwise specified.												
Single phase, half wave ,60Hz, resistive or inductive load.												
For capacitive load, derate current by 20%												
CHARACTERISTICS	SYMBOL	25SQ 030	25SQ 035	25SQ 040	25SQ 045	25SQ 050	25SQ 055	25SQ 060	UNIT			
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	30	35	40	45	50	55	60	V			
Maximum RMS Voltage	V <sub>RMS</sub>	21	25	28	32	35	39	42	V			
Maximum DC Blocking Voltage	V <sub>DC</sub>	30	35	40	45	50	55	60	V			
Maximum Average Forward Rectified Current ( See Fig.1) @T <sub>c</sub> =95 °C	I(AV)	25						A				
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	275						A				
Peak Forward Voltage at 12.5A DC(Note1)	V <sub>F</sub>	0.55			0.7			V				
Maximum DC Reverse Current @T <sub>J</sub> =25°C at Rated DC Bolcking Voltage @T <sub>J</sub> =125°C	I <sub>R</sub>	0.5 50						mA				
Typical Thermal Resistance(Note2)	R <sub>θJC</sub>	12						°C/W				
Operating Temperature Range	T <sub>J</sub>	-55 to +200						°C				
Storage Temperature Range	T <sub>STG</sub>	-55 to +200						°C				
NOTES:1.300us pulse width,2% duty cycle. 2.Thermal Resistance Junction to case(without heatsink).												

**RATING AND CHARACTERISTIC CURVES**  
**25SQ030 thru 25SQ060**

**HY**

FIG. 1 – FORWARD CURRENT DERATING CURVE

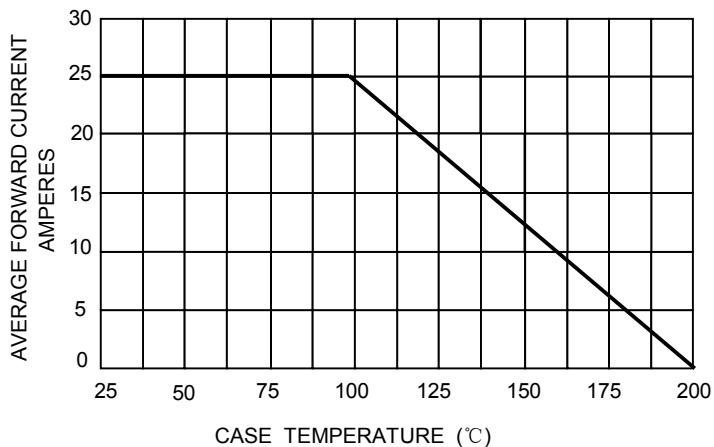


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

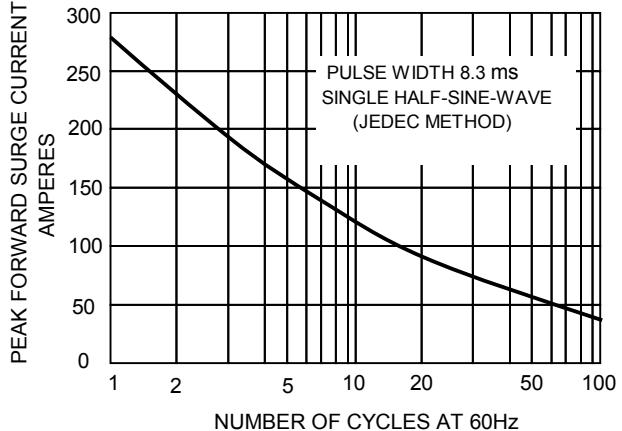


FIG.3-TYPICAL REVER CHARACTERISTICS

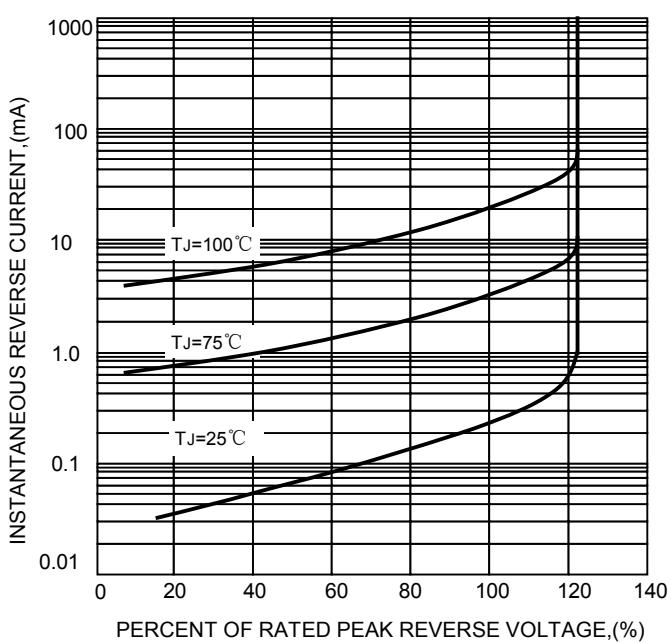
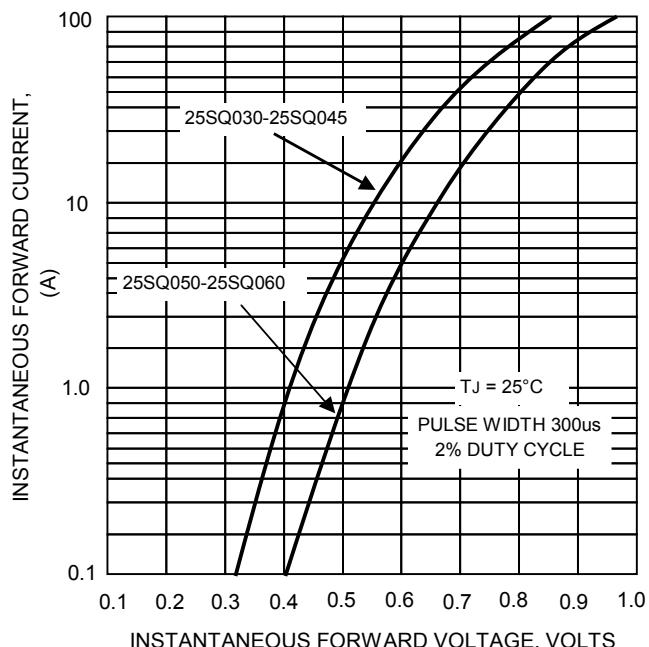
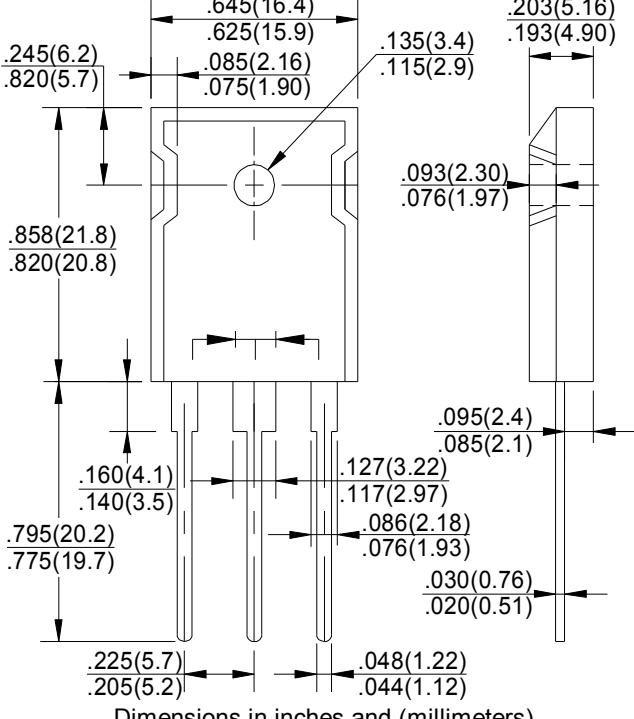


FIG.4-TYPICAL FORWARD CHARACTERISTICS



SCHOTTKY BARRIER RECTIFIERS	REVERSE VOLTAGE - 30 to 100Volts FORWARD CURRENT - 30.0 Amperes																				
<b>FEATURES</b>	<b>TO-3P</b>  Dimensions in inches and (millimeters)																				
<ul style="list-style-type: none"> <li>● Metal of silicon rectifier , majority carrier conduction</li> <li>● Guard ring for transient protection</li> <li>● Low power loss,high efficiency</li> <li>● High current capability,low VF</li> <li>● High surge capacity</li> <li>● Plastic package has UL flammability classification 94V-0</li> <li>● For use in low voltage,high frequency inverters,free wheeling, and polarity protection applications</li> </ul>																					
<b>MECHANICAL DATA</b>																					
<ul style="list-style-type: none"> <li>● Case: TO-3P molded plastic</li> <li>● Polarity: As marked on the body</li> <li>● Weight: 0.2ounces,5.6 grams</li> <li>● Mounting position :Any</li> </ul>																					
<b>MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS</b>																					
Rating at 25°C ambient temperature unless otherwise specified.																					
Single phase, half wave ,60Hz, resistive or inductive load.																					
For capacitive load, derate current by 20%																					
CHARACTERISTICS	SYMBOL	SR 3030PT	SR 3040PT	SR 3050PT	SR 3060PT	SR 3080PT	SR 30100PT	SR 30150PT	UNIT												
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	30	40	50	60	80	100	150	V												
Maximum RMS Voltage	V <sub>RMS</sub>	21	28	35	42	56	70	105	V												
Maximum DC Blocking Voltage	V <sub>DC</sub>	30	40	50	60	80	100	150	V												
Maximum Average Forward Rectified Current ( See Fig.1) @T <sub>c</sub> =95°C	I <sub>(AV)</sub>	30						A													
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	275						A													
Peak Forward Voltage at 15.0A DC	V <sub>F</sub>	0.55		0.70		0.85		0.95	V												
Maximum DC Reverse Current @T <sub>J</sub> =25°C at Rated DC Bolcking Voltage @T <sub>J</sub> =100°C	I <sub>R</sub>	1.0 75						mA													
Typical Junction Capacitance (Note1)	C <sub>J</sub>	700						pF													
Typical Thermal Resistance (Note2)	R <sub>θJC</sub>	2.0						°C/W													
Operating Temperature Range	T <sub>J</sub>	-55 to + 125						°C													
Storage Temperature Range	T <sub>STG</sub>	-55 to + 150						°C													
NOTES: 1.Measured at 1.0 MHz and applied reverse voltage of 4.0VDC.																					
2.Thermal resistance junction to case.																					

# RATING AND CHARACTERISTIC CURVES

## SR3030PT thru SR30150PT

**HY**

FIG. 1 – FORWARD CURRENT DERATING CURVE

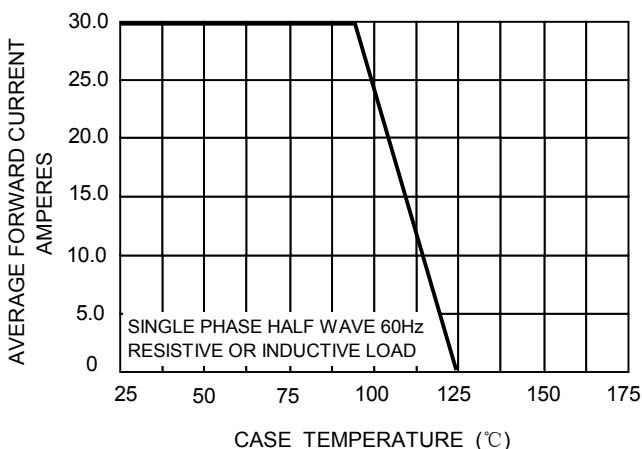


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

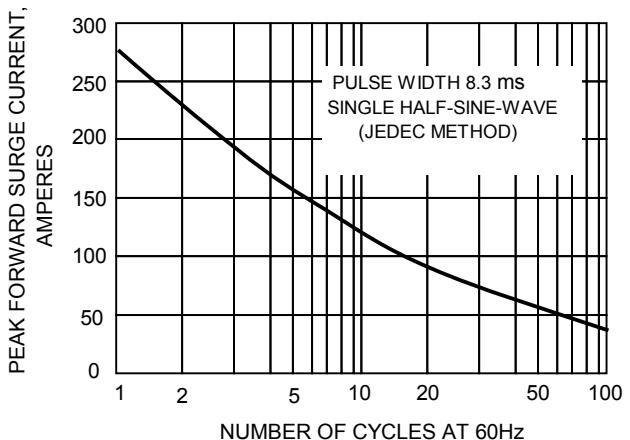


FIG.3-TYPICAL REVER CHARACTERISTICS

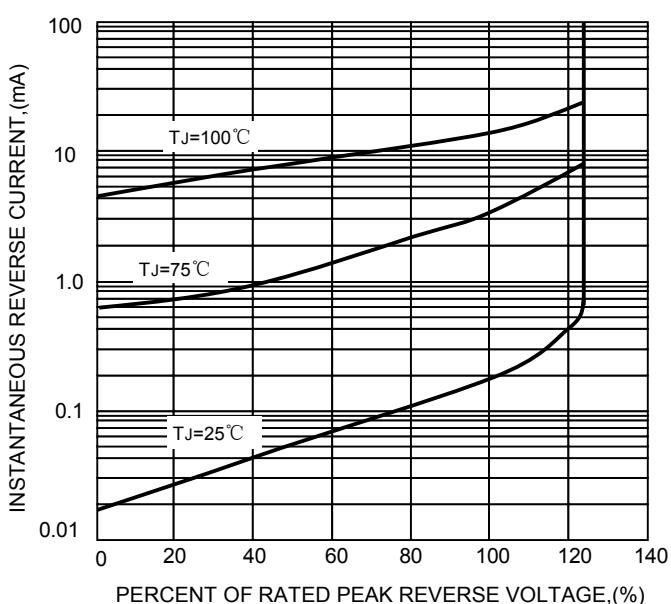


FIG.4-TYPICAL FORWARD CHARACTERISTICS

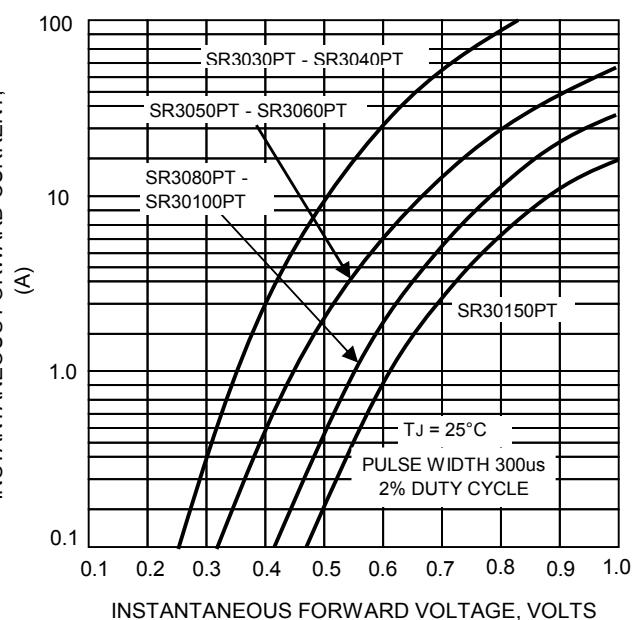
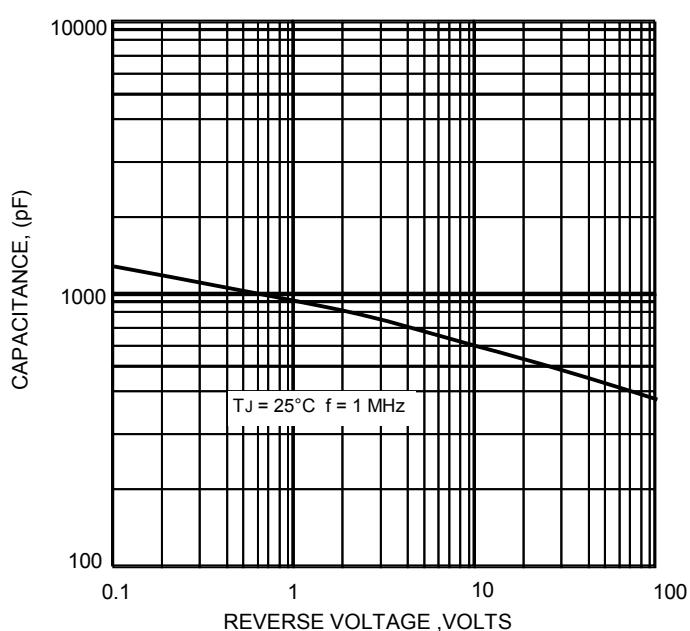
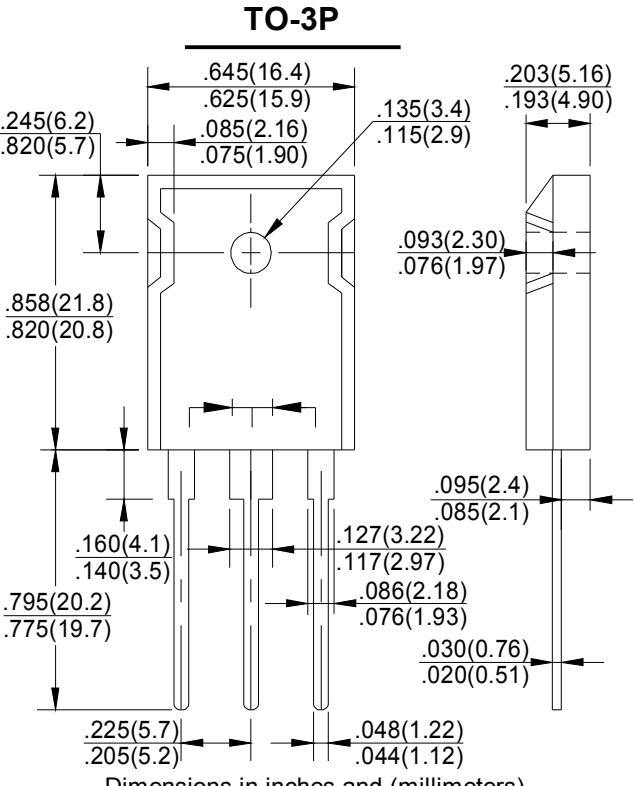


FIG.5 – TYPICAL JUNCTION CAPACITANCE



SCHOTTKY BARRIER RECTIFIERS	REVERSE VOLTAGE - 30 to 150Volts FORWARD CURRENT - 40.0 Amperes								
<b>FEATURES</b>	 <p>The diagram shows a TO-3P package with various dimensions. Key dimensions include:    - Top width: .645(16.4) mm, height: .135(3.4) mm.    - Left side height: .245(6.2) mm, width: .820(5.7) mm.    - Center height: .858(21.8) mm, width: .820(20.8) mm.    - Right side height: .115(2.9) mm, width: .193(4.90) mm.    - Bottom width: .203(5.16) mm, height: .093(2.30) mm.    - Total height: .795(20.2) mm, width: .775(19.7) mm.    - Lead spacing: .160(4.1) mm, lead thickness: .140(3.5) mm.    - Lead height: .095(2.4) mm, lead width: .085(2.1) mm.    - Lead tip height: .127(3.22) mm, lead tip width: .117(2.97) mm.    - Lead bottom height: .086(2.18) mm, lead bottom width: .076(1.93) mm.    - Lead bottom tip height: .030(0.76) mm, lead bottom tip width: .020(0.51) mm.    - Lead bottom gap: .225(5.7) mm, lead bottom thickness: .205(5.2) mm.    - Lead bottom tip gap: .048(1.22) mm, lead bottom tip thickness: .044(1.12) mm.</p> <p>Dimensions in inches and (millimeters)</p>								
<b>MECHANICAL DATA</b>									
<ul style="list-style-type: none"> <li>Case: TO-3P molded plastic</li> <li>Polarity: As marked on the body</li> <li>Weight: 0.2ounces,5.6 grams</li> <li>Mounting position :Any</li> </ul>									
<b>MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS</b>									
Rating at 25°C ambient temperature unless otherwise specified.									
Single phase, half wave ,60Hz, resistive or inductive load.									
For capacitive load, derate current by 20%									
CHARACTERISTICS	SYMBOL	SR 4030PT	SR 4040PT	SR 4050PT	SR 4060PT	SR 4080PT	SR 40100PT	SR 40150PT	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	30	40	50	60	80	100	150	V
Maximum RMS Voltage	V <sub>RMS</sub>	21	28	35	42	56	70	105	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	30	40	50	60	80	100	150	V
Maximum Average Forward Rectified Current ( See Fig.1) @T <sub>c</sub> =100°C	I <sub>(AV)</sub>					40			A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>					375			A
Peak Forward Voltage at 20.0A DC	V <sub>F</sub>		0.55		0.70		0.85	0.95	V
Maximum DC Reverse Current @T <sub>J</sub> =25°C at Rated DC Bolcking Voltage @T <sub>J</sub> =100°C	I <sub>R</sub>				1.0				mA
					100				
Typical Junction Capacitance (Note1)	C <sub>J</sub>				800				pF
Typical Thermal Resistance (Note2)	R <sub>θJC</sub>				1.4				°C/W
Operating Temperature Range	T <sub>J</sub>				-55 to + 125				°C
Storage Temperature Range	T <sub>STG</sub>				-55 to + 150				°C
NOTES: 1.Measured at 1.0 MHz and applied reverse voltage of 4.0VDC.									
2.Thermal resistance junction to case.									

# RATING AND CHARACTERISTIC CURVES

## SR4030PT thru SR40150PT

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FIG. 1 – FORWARD CURRENT DERATING CURVE

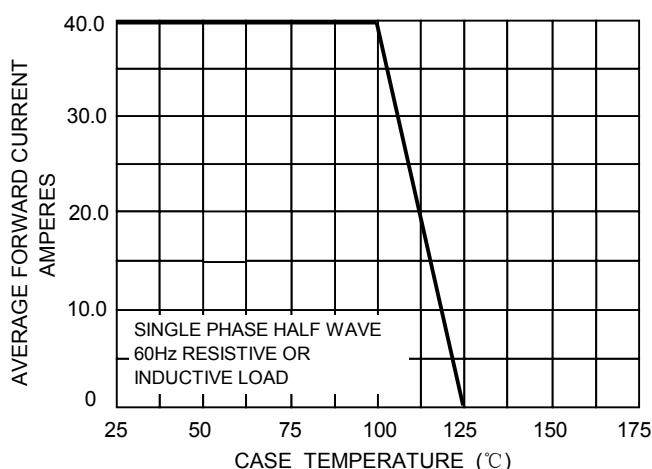


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

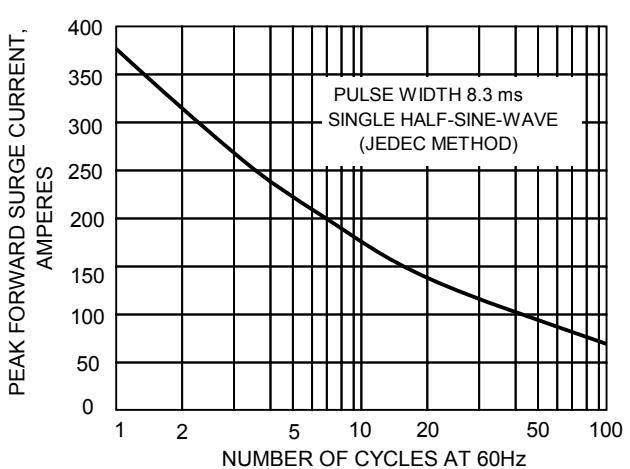


FIG.3-TYPICAL REVER CHARACTERISTICS

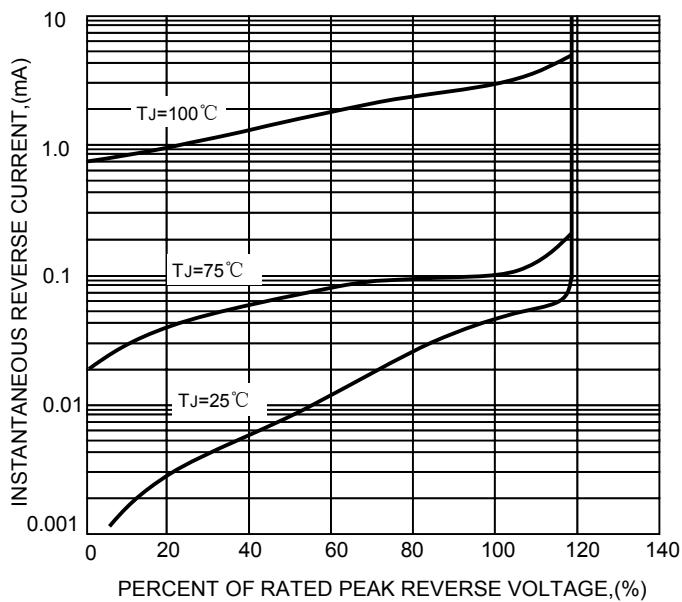


FIG.4-TYPICAL FORWARD CHARACTERISTICS

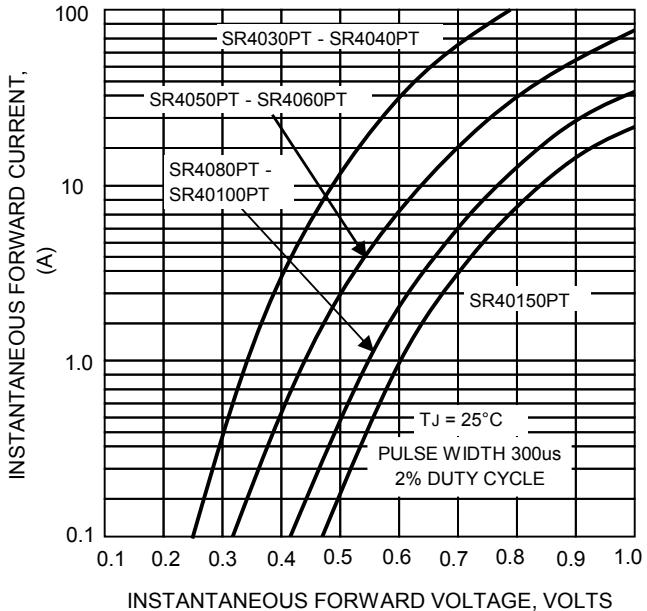


FIG.5 – TYPICAL JUNCTION CAPACITANCE

