

### Surface Mount Super Fast Rectifiers

\* "G" Lead(Pb)-Free

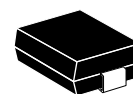
#### Features:

- \*For Surface Mount Application
- \*Super Fast Switching For High Efficiency
- \*Glass Passivated Chip
- \*Low Reverse Leakage Current
- \*Low Forward Voltage Drop And High Current Capability
- \*Plastic Meterial Has UL Flammability Classification 94V-0

#### Mechanical Data

- \*Case : Molded Plastic
- \*Polarity :Indicated by cathode band
- \*Weight : 0.007 Ounce ,0.21 grams

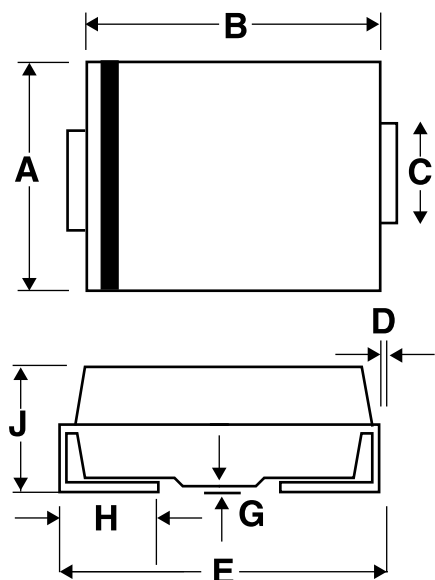
**REVERSE VOLTAGE**  
**50 TO 600 VOLTS**  
**FORWARD CURRENT**  
**3.0 AMPERE**



**SMC(DO-214AB)**

### SMC Outline Dimension

Unit:mm



SMC		
Dim	Min	Max
<b>A</b>	5.59	6.22
<b>B</b>	6.60	7.11
<b>C</b>	2.75	3.18
<b>D</b>	0.15	0.31
<b>E</b>	7.75	8.13
<b>G</b>	0.10	0.20
<b>H</b>	0.76	1.52
<b>J</b>	2.00	2.62

## Maximum Ratings and Electrical Characteristics

Rating 25°C Ambient Temperature Unless Otherwise Specified.

Single Phase Half Wave, 60Hz , Resistive or Inductive Load.

For Capacitive Load, Derate Current by 20%.

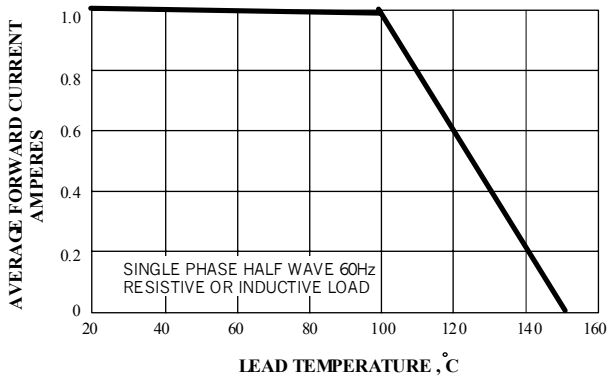
Characteristics	Symbol	ES3A	ES3B	ES3D	ES3G	ES3J	Unit
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	V
Maximum Average Forward Rectified Current @TC=100°C	IF(AV)	3.0					A
Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	IFSM	100					A
Maximum Instantaneous At 3.0A DC	VF	0.95			1.30	1.50	V
Maximum DC Reverse Current @Tj=25°C At Rated DC Blocking Voltage @Tj=125°C	IR	10 500					uA
Maximum Reverse Recovery Time(Note1)	Trr	35					nS
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	45					P <sub>F</sub>
Typical Thermal Resistance (Note 3)	R <sub>θJL</sub>	10					°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to+150					°C
Storage Temperature Range	TSTG	-55 to+150					°C

NOTES:1.Reverse Recovery Test Conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A.

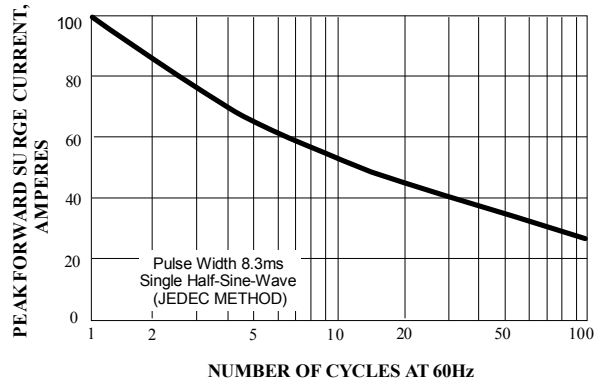
2.Measured at 1.0MHz applied reverse voltage of 4.0V DC.

3.Thermal Resistance Junction to case.

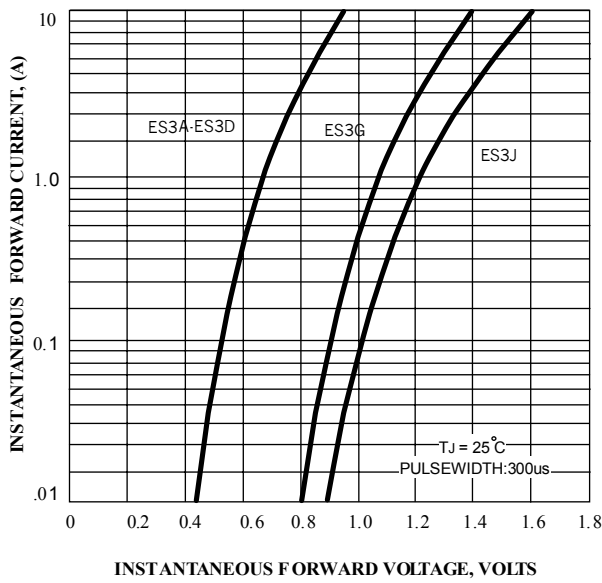
**FIG.1 - FORWARD CURRENT DERATING CURVE**



**FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT**



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

