



#### SCHOTTKY BARRIER RECTIFIERS

SCHOTTKI BAKKILK KESTILILKS

#### **FEATURES**

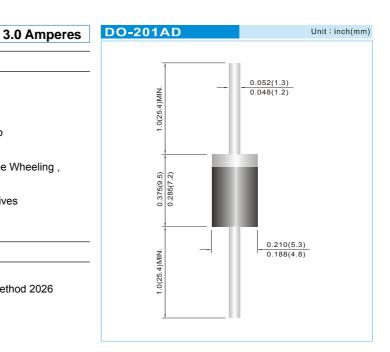
• Guard Ring Die Construction for Transient Protection

VOLTAGE 40 to 200 Volts CURRENT

- · Low Power Loss, High Efficiency
- · High Surge Capability
- High Current Capability and Low Forward Voltage Drop
- Surge Overload Rating to 80A Peak
- For Use in Low Voltage, High Frequency Inverters , Free Wheeling , and Polarity Protection Applications .
- Lead free in comply with EU RoHS 2011/65/EU directives



- · Case: DO-201AD Molded plastic
- Terminals: Axial leads, solderable per MIL-STD-750, Method 2026
- · Polarity: Color band denotes cathode
- · Mounting Position: Any
- Weight: 0.0395 ounce, 1.122 gram



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

PARAMETER	SYMBOL	MBR340	MBR345	MBR350	MBR360	MBR380	MBR390	MBR3100	MBR3150	MBR3200	UNITS
Maximum Recurrent Peak Reverse Voltage		40	45	50	60	80	90	100	150	200	V
Maximum RMS Voltage		28	31.5	35	42	56	63	70	105	140	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	40	45	50	60	80	90	100	150	200	V
Average Rectified Output Current (See Figure 1)	I <sub>o</sub>	3.0						А			
Non-Repetitive Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	80						А			
Forward Voltage at 3.0A (Note 3)	V <sub>F</sub>	0.70 0.74		74	0.80		0.9		V		
Peak Reverse Current at Rated DC $T_j$ =25°C Blocking Voltage $T_j$ =100°C	I <sub>R</sub>	0.05 10						mA			
Typical Thermal Resistance (Note 2) (Note 1) (Note 1)	$R_{_{ heta JA}} \ R_{_{ heta JC}} \ R_{_{ heta JL}}$	50 12 15						°C / W			
Operating Junction and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to +150 -65 to +150						°C			

#### Notes:

- 1. Measured at ambient temperature at a distance of 9.5mm from the case
- 2. Minimum Pad Area
- 3. Pulse test :  $300\mu s$  pulse width , 1% duty cycle





#### **RATING AND CHARACTERISTIC CURVES**

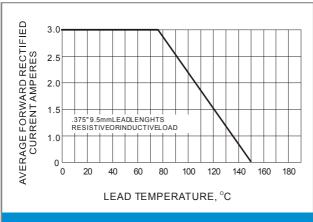


Fig.1- FORWARD CURRENT DERATING CURVE

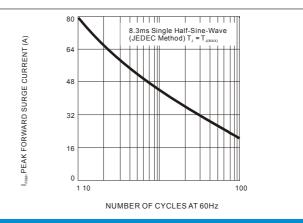


Fig.2- MAXIMUM NON-REPETITIVEPEAKFORWARD SURGE CURRENT

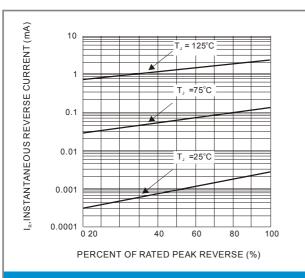


Fig.3-TYPICAL REVERSE CHARACTERISTIC

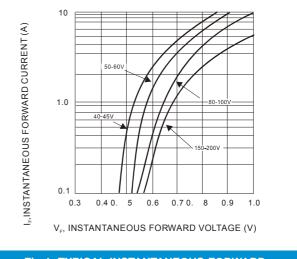


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

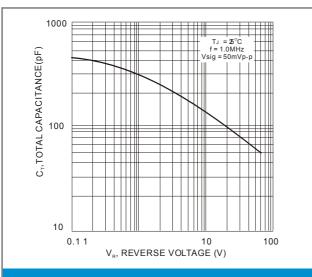


Fig.5- TYPICAL TOTAL CHARACTERISTIC





## Part No\_packing code\_Version

MBR340\_AY\_00001

MBR340\_AY\_10001

MBR340\_B0\_00001

MBR340\_B0\_10001

MBR340\_R2\_00001

MBR340\_R2\_10001

### For example:



Packing Code XX					Version Code XXXXX				
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code			
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number			
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number			
Bulk Packing (B/P)	В	13"	2						
Tube Packing (T/P)	Т	26mm	X						
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y						
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U						
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D						





## **Disclaimer**

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties
  of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation.
   Customers are responsible in comprehending the suitable use in particular applications.
   Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.