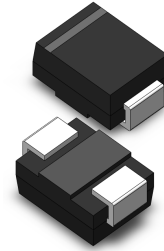


**VOLTAGE RANGE: 20 - 100V**  
**CURRENT: 1.0 A**

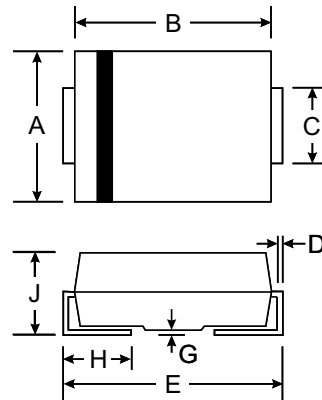
### Features

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-O



### Mechanical Data

- Case: SMB/DO-214AA, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.093 grams (approx.)



SMB(DO-214AA)		
Dim	Min	Max
A	3.30	3.94
B	4.06	4.70
C	1.91	2.21
D	0.15	0.31
E	5.00	5.59
G	0.10	0.20
H	0.76	1.52
J	2.00	2.62
All Dimensions in mm		



### Maximum Ratings and Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	MBRS 120	MBRS 130	MBRS 140	MBRS 150	MBRS 160	MBRS 180	MBRS 190	MBRS 1100	Unit	
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	80	90	100	V	
Working Peak Reverse Voltage	V <sub>RWM</sub>										
DC Blocking Voltage	V <sub>R</sub>										
RMS Reverse Voltage	V <sub>R(RMS)</sub>	14	21	28	35	42	56	64	71	V	
Average Rectified Output Current @T <sub>L</sub> = 75°C	I <sub>O</sub>	1.0								A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	30								A	
Forward Voltage @I <sub>F</sub> = 1.0A	V <sub>FM</sub>	0.50			0.70		0.85			V	
Peak Reverse Current @T <sub>A</sub> = 25°C At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C	I <sub>RM</sub>	0.5					20				mA
Typical Thermal Resistance (Note 1)	R <sub>θJL</sub> R <sub>θJA</sub>	28					88				°C/W
Operating Temperature Range	T <sub>j</sub>	-65 to +125								°C	
Storage Temperature Range	T <sub>STG</sub>	-65 to +150								°C	

Note: 1. Mounted on P.C. Board with 5.0mm<sup>2</sup> copper pad area.



## RATING AND CHARACTERISTIC CURVES ( MBR120 - MBR1100 )

FIG.1 - FORWARD CURRENT DERATING CURVE

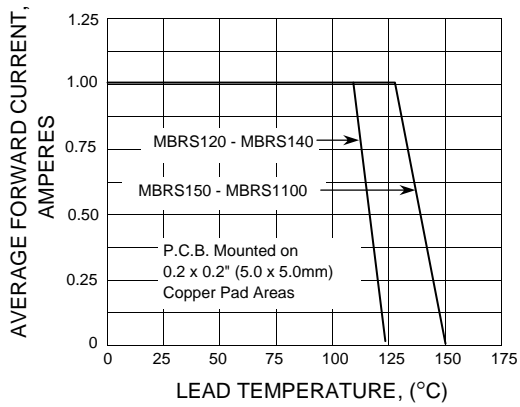


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

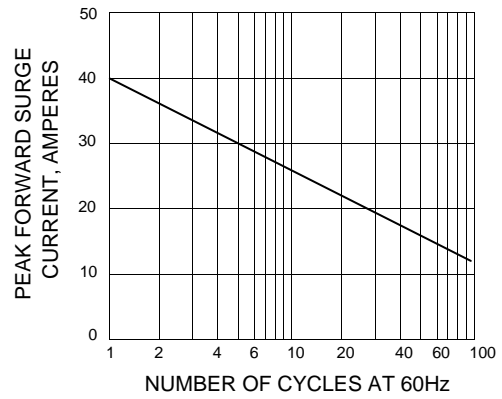


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

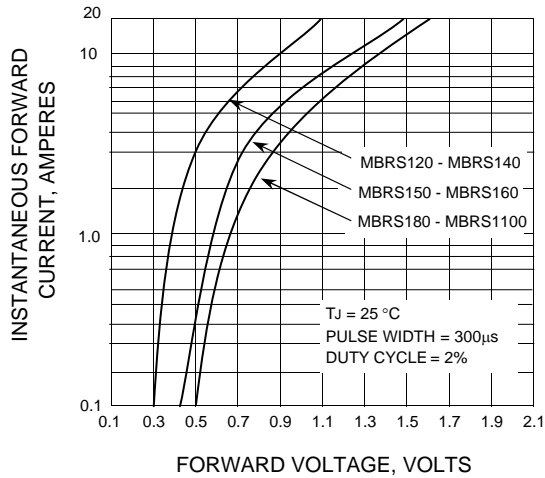


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

