



## MB24~MB220

### SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

**VOLTAGE** 40 to 200 Volts **CURRENT** 2.0 Amperes

SMB / DO-214AA

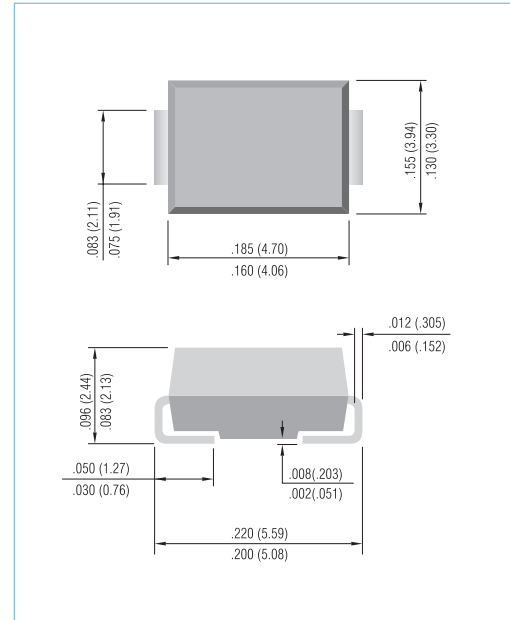
Unit: inch ( mm )

#### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier. majority carrier conduction
- Low power loss,high efficiency
- High surge capacity
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- In compliance with EU RoHS 2002/95/EC directives

#### MECHANICAL DATA

- Case: JEDEC DO-214AA molded plastic
- Terminals:Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes positive end (cathode)
- Standard packaging: 12mm tape (EIA-481)
- Weight: 0.0032 ounce, 0.092 gram



#### MAXIMUM RATINGS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load.

PARAMETER	SYMBOL	MB24	MB24A	MB25	MB26	MB28	MB29	MB210	MB215	MB220	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	40	45	50	60	80	90	100	150	200	V
Maximum RMS Voltage	$V_{RMS}$	28	31.5	35	42	56	63	70	105	140	V
Maximum DC Blocking Voltage	$V_{DC}$	40	45	50	60	80	90	100	150	200	V
Maximum Average Forward Current (See Figure 1)	$I_{F(AV)}$	2.0									A
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	50									A
Maximum Forward Voltage at 2.0A ( Note 1)	$V_F$	0.70		0.74		0.80		0.90			V
Maximum DC Reverse Current $T_j=25^{\circ}C$ at Rated DC Blocking Voltage $T_j=100^{\circ}C$	$I_R$	0.05 20									mA
Typical Thermal Resistance ( Note 2)	$R_{\theta JL}$	12									$^{\circ}C / W$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150				-55 to +175					$^{\circ}C$

#### NOTES:

1. Pulse Test with PW =300μsec, 1% Duty Cycle.
2. Mounted on P.C. Board with 8mm<sup>2</sup> (.013mm thick) copper pad areas.



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## RATING AND CHARACTERISTIC CURVES

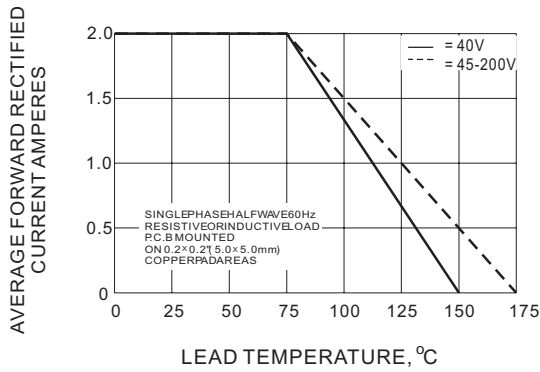


Fig.1-FORWARD CURRENT DERATING CURVE

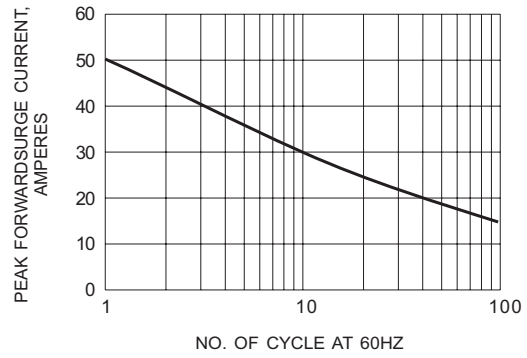


Fig.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

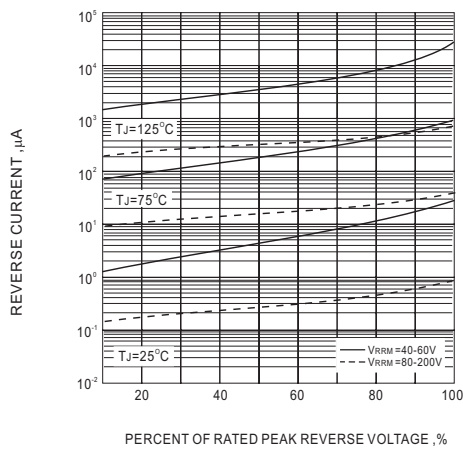


Fig.3-TYPICAL REVERSE CHARACTERISTIC

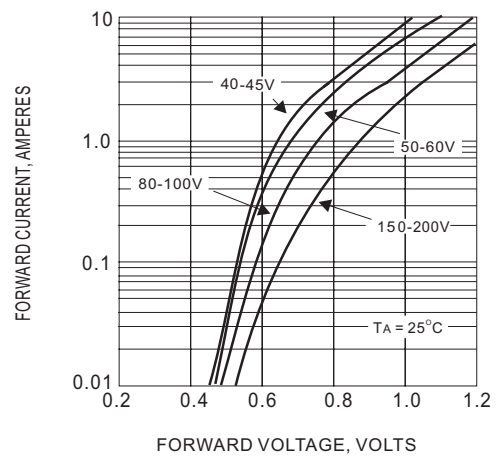


Fig.4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

PRELIMINARY