



TAYCHIPST

SCHOTTKY BARRIER RECTIFIERS

MBR240 THRU MBR2200

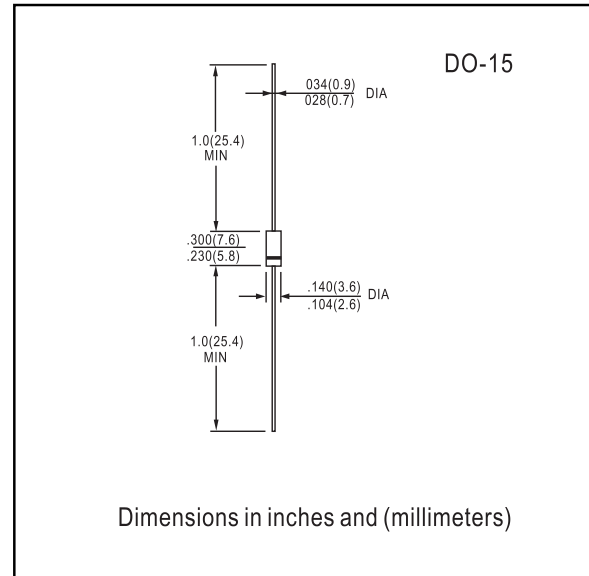
40V-200V 2.0A

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Exceeds environmental standards of MIL-S-19500/228
- 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: DO-15 Molded plastic
- Terminals: Axial leads, solderable per MIL-STD-750,Method 2026
- Polarity: Color band denotes cathode
- Mounting Position: Any
- Weight: 0.014 ounces, 0.397 grams



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	MBR240	MBR245	MBR250	MBR260	MBR280	MBR290	MBR2100	MBR2150	MBR2200	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 Rectified Current .375"(9.5mm) lead length (see fig1)	$I_{F(AV)}$	2.0									A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	50									A
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	35									°C / W
Maximum Forward Voltage at 2.0A (Note 1)	V_F	0.7		0.74		0.8		0.9			V
Maximum DC Reverse Current at $T_j=25^\circ\text{C}$ Rated DC Blocking Voltage $T_j=100^\circ\text{C}$	I_R	0.05 20									mA
Operating Junctionand Storage Temperature Rang	T_j, T_{STG}	-55 to +150				-65 to +175					°C

NOTES:

- 1.Pulse Test : 300µs pulse with , 1% Duty Cycle.
- 2Thermal resistance junction to lead P.C.B mounted 0.375"(9.5mm) lead length.

RATINGS AND CHARACTERISTIC CURVES MBR240 THRU MBR2200

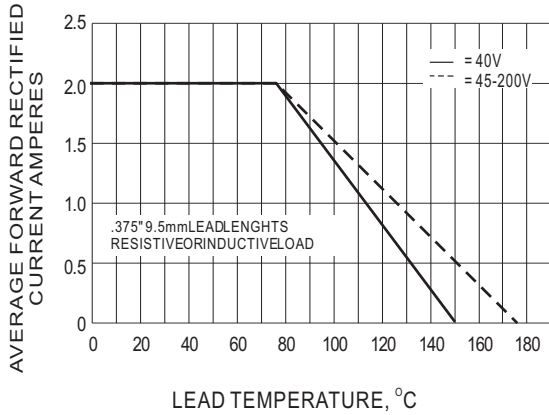


Fig.1- FORWARD CURRENT DERATING CURVE

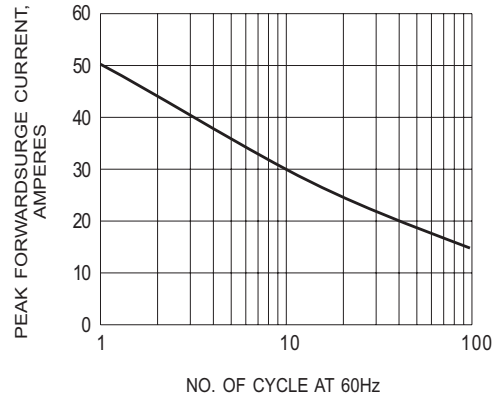


Fig.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

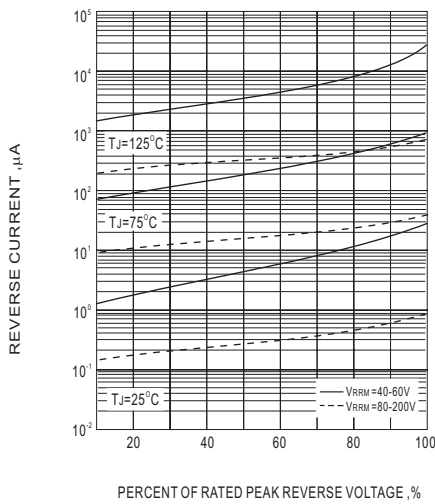


Fig.3- TYPICAL REVERSE CHARACTERISTIC

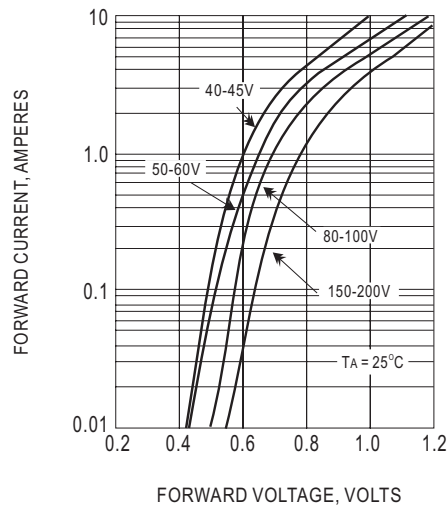


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC