

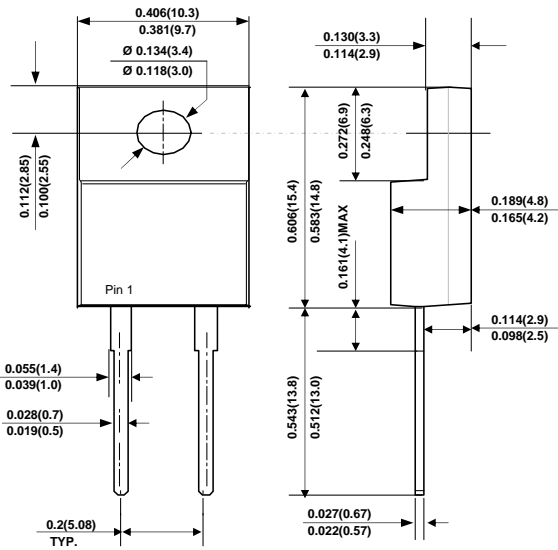


MBR1040F THRU MBR10200F

10AMPERS ISOLATION SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 40 and 200 Volts Forward Current - 10.0 Ampere

ITO-220AC



Dimensions in inches and (millimeters)

FEATURES

- ◆ Flame Retardant Epoxy Molding Compound.
- ◆ Metal silicon junction, majority carrier conduction.
- ◆ Low power loss, High efficiency, High current capability.
- ◆ Guardring for overvoltage protection.
- ◆ Electrically Isolated. No Isolation Hardware Required.
- ◆ In compliance with EU Rohs 2002/95/EC directives.
- ◆ For use low voltage, high frequency inverters froo wheeling, and polarity protection application.
- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0.

MECHANICAL DATA

Case: ITO-220AC, Molded plastic.

Terminals: Solderable per MIL-STD-750 · Method 2026

Standard Packaging : Tube.

Polarity: As marked.

Mounting Position: Any.

Weight: 0.055ounces, 1.5615 grams.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specif ied.

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

PARAMETER	SYMBOLS	MBR10 40F	MBR10 45F	MBR10 50F	MBR10 60F	MBR10 80F	MBR10 90F	MBR10 100F	MBR10 150F	MBR10 200F	UNITS	
Maximum repetitive peak reverse voltage	V_{RRM}	40	45	50	60	80	90	100	150	200	Volts	
Maximum RMS voltage	V_{RMS}	28	31.5	35	42	56	63	70	105	140	Volts	
Minimum DC Breakdown Voltage	V_{DC}	40	45	50	60	80	90	100	150	200	Volts	
Average Rectified current	$I_{F(AV)}$	10									Amp	
Non-repetitive Peak Forward Surge Current at 1=8.3ms half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150									Amps	
Maximum Forward Voltage at $I_F=10A$	V_F	0.7	0.75		0.8			0.9		Volts		
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	$T_J=25^{\circ}C$					0.05					mA
		$T_J=125^{\circ}C$					20					
Typical Thermal Resistance	$R_{\theta JC}$	3									°C/W	
Operating Junction and Storage Temperature Range	T_{STG}	-50~+150			-65 ~ +175						°C	

Note: Both bonding and chip structure are available.



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RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

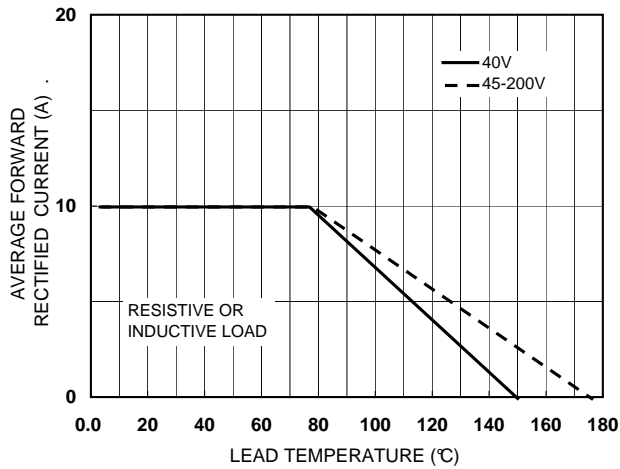


FIG. 2-TYPICAL FORWARD SURGE CHARACTERISTICS

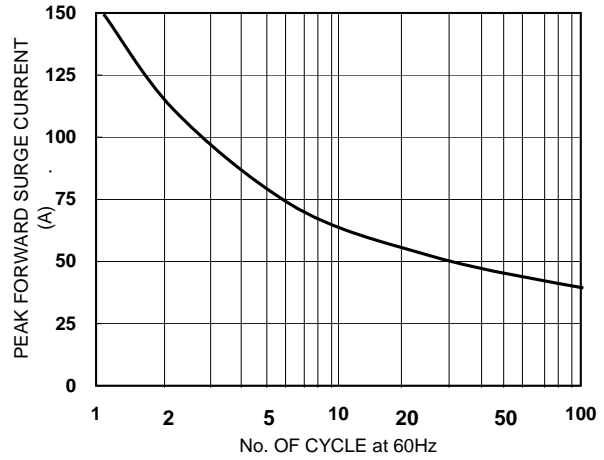


FIG. 3-TYPICAL REVERSE CHARACTERISTICS

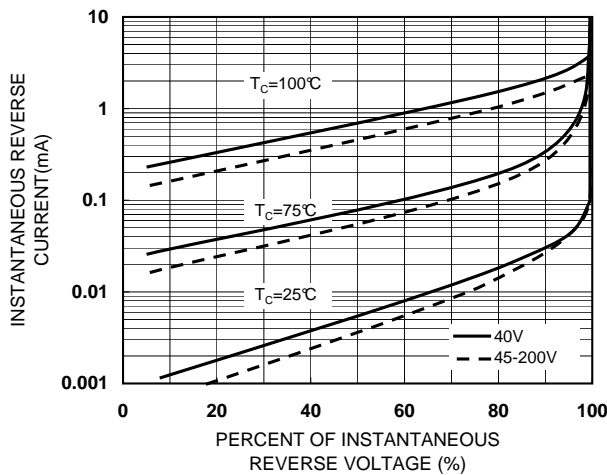


FIG. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

