

MBR4040CT~MBR40200CT

40 AMPERES SCHOTTKY BARRIER RECTIFIERS

Voltage	40 to 200 Volts	Current	40 Amperes
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DRAWING



Features

- ◆ Plastic package has underwriters laboratory Flammability classification 94v-O. Flame retardant epoxy molding compound.
- ◆ Metal silicon junction, majority carrier condition.
- ◆ Low power loss, high efficiency.
- ◆ High current capability
- ◆ Guarding for over voltage protection
- ◆ For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.
- ◆ In compliance with EU ROHS 2002/95/EC directives.
- ◆ Case:TO-220C

Maximum ratings and Electrical Characteristics

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

For capacitive load, derate current by 20%.

PARAMETER	Symb ol	MBR 4040CT	MBR 4045CT	MBR 4050CT	MBR 4060CT	MBR 40100CT	MBR 40150CT	MBR 40200CT	Units	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	45	50	60	100	150	200	V	
Maximum RMS Voltage	V_{RMS}	40	45	50	60	100	150	200	V	
Maximum DC Blocking Voltage	V_{DC}	40	45	50	60	100	150	200	V	
Maximum Average Forward Current	$I_{F(AV)}$	40							A	
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	250							A	
Maximum Forward Voltage at 20A,per leg	V_F	0.7	0.75		1.2		1.0	V		
Maximum DC Reverse Current $T_J=25^\circ C$ at Rated DC Blocking Voltage $T_J=125^\circ C$	I_R	0.1							50	mA
Typical Thermal Resistance	$R_{\theta jc}$	1.2							$^\circ C/W$	
Operating Junction and Storage Temperature Range	$T_{J, T_{ST}}$ G	-50 to +150	-65 to +175						$^\circ C$	

Typical Characteristics

RATING AND CHARACTERISTIC CURVES

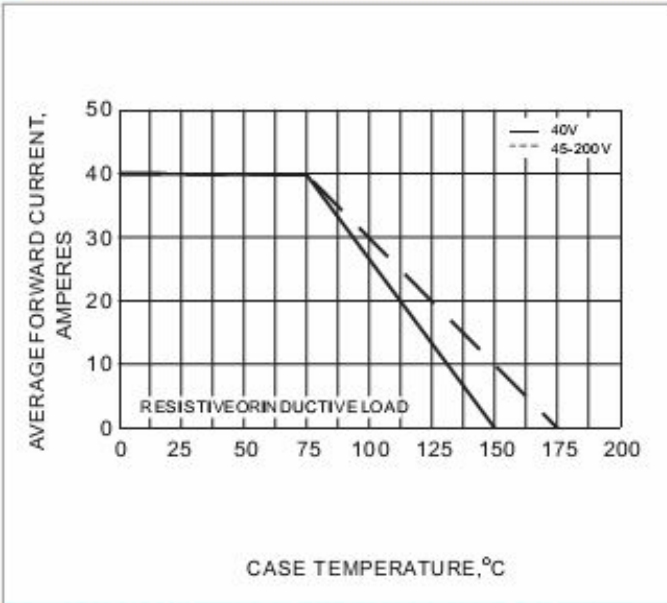


Fig. 1-FORWARD CURRENT DERATING CURVE

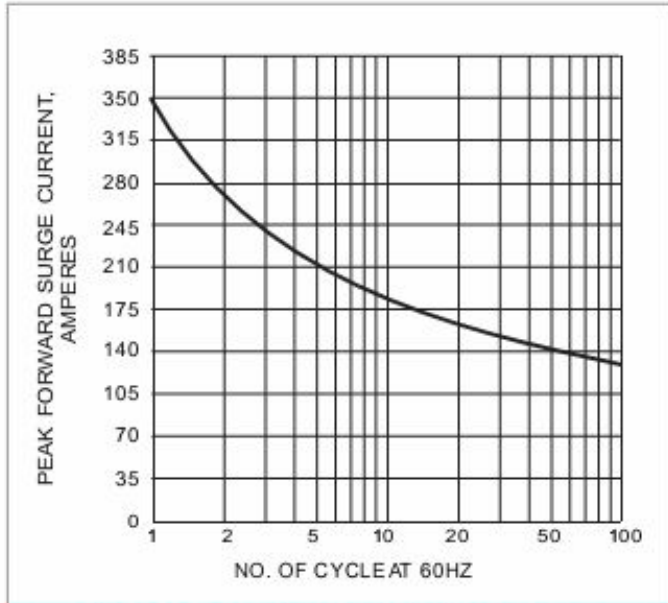


Fig. 2-MAXMUM NON-REPETITIVE SURGE CURRENT

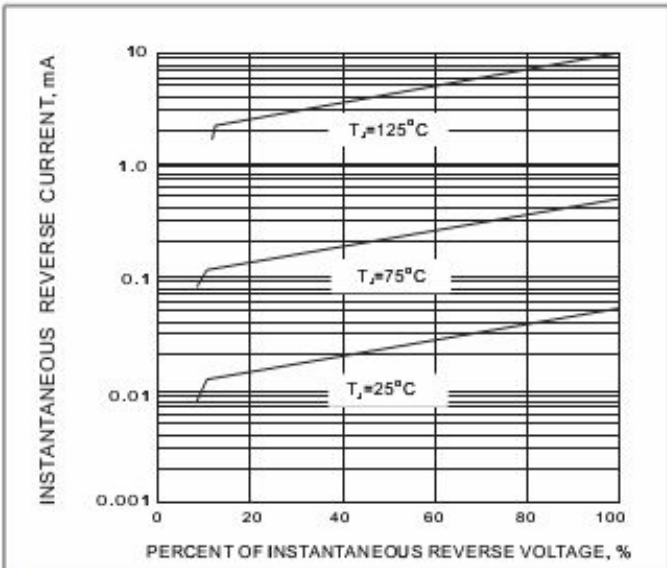


Fig. 3-TYPICAL REVERSE CHARACTERISTIC

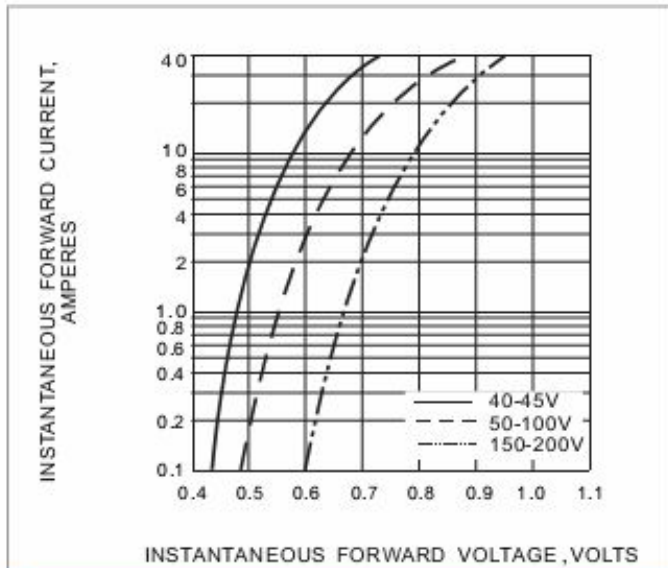


Fig. 4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

Mechanical Dimensions

