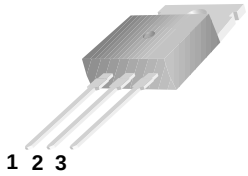
MBR1040SCT - MBR10200SCT

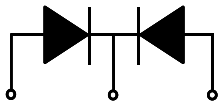
10A SCHOTTKY BARRIER RECTIFIER

Features

- ☐ Low power loss, high efficiency. High surge capacity.
- ☐ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.
- ☐ Metal silicon junction, majority carrier conduction.
- ☐ High current capacity, low forward voltage drop.
- ☐ Guard ring for over voltage protection.

TO-220





1. Anode 2.Cathode 3. Anode

Absolute Maximum Ratings*

T = 25°C unless otherwise noted

PARAMETER UNITS	SYMBOS	1040SCT	1045SCT	1050SCT	1060SCT	1080SCT	1090SCT	10100SCT	10150SCT	10200SCT	
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	$I_{F(AV)}$	10									A
Peak Forward Surge Current : 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	120									A
Maximum Forward Voltage at 5A per leg	V_F	0.7		0.75		0.85			0.95		V
Maximum DC Reverse Current T_J=25 °C at Rated DC Blocking Voltage T_J=125°C	I_R	0.1 20									mA
Typical Thermal Resistance	$R_{\theta JC}$	1.4									°C / W
Operating Junction and Storage Temperature Range	T_J,T_{STG}	-55 to + 150	-65 to + 175								°C

Typical Characteristics

RATING AND CHARACTERISTIC CURVES

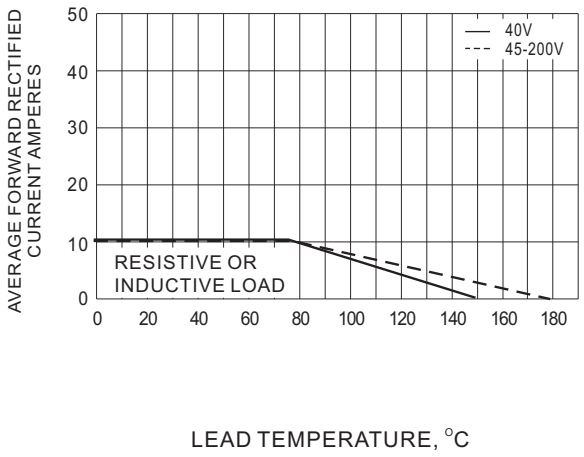


Fig.1- FORWARD CURRENT DERATING CURVE

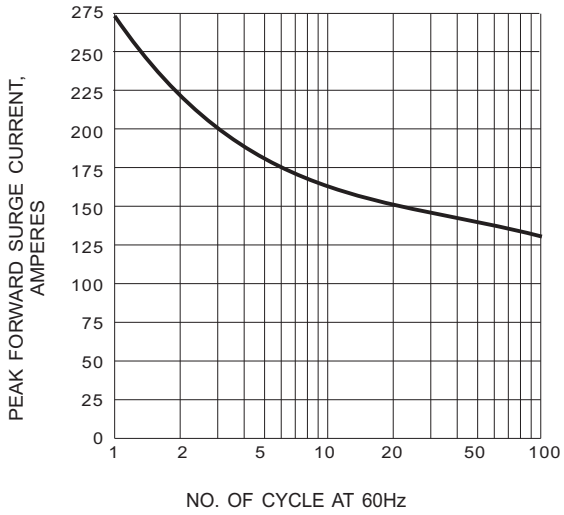


Fig.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

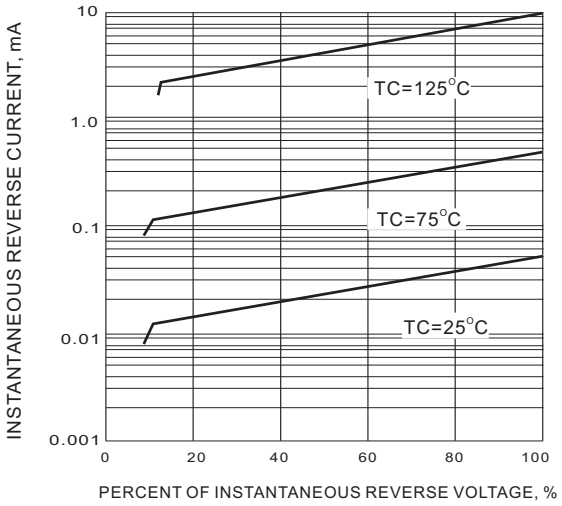


Fig.3- TYPICAL REVERSE CHARACTERISTIC

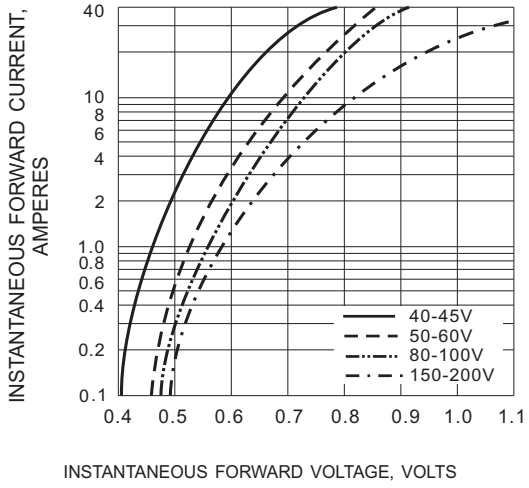


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

Package Dimension

