

Schottky Barrier Rectifiers

Using the Schottky Barrier principle with a Refractory metal capable of high temperature operation metal. The proprietary barrier technology allows for reliable operation up to 175 junction temperature. Typical application are in switching Mode Power Supplies such as adaptors, DC/DC converters, free-wheeling and polarity protection diodes.

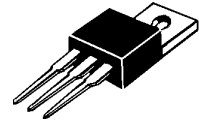
- * Low Forward Voltage.
- * Low Forward Voltage.
- * Low Switching noise.
- * High Current Capacity
- * Guarantee Reverse Avalanche.
- * Guard-Ring for Stress Protection.
- * Low Power Loss & High efficiency.
- * 175 Operating Junction Temperature
- * Low Stored Charge Majority Carrier Conduction.
- * Plastic Material used Carries Underwriters Laboratory Flammability Classification 94V-O
- * ESD: 4KV(Min.) Human-Body Model



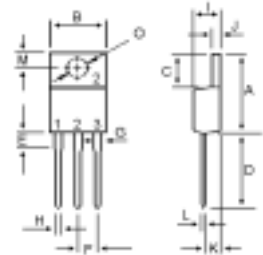
* In compliance with EU RoHs 2002/95/EC directives

SCHOTTKY BARRIER RECTIFIERS

**10 AMPERES
200 VOLTS**



TO-220AB



DIM	MILLIMETERS	
	MIN	MAX
A	14.68	15.32
B	9.78	10.42
C	5.02	6.52
D	13.06	14.62
E	3.57	4.07
F	2.42	2.66
G	1.12	1.36
H	0.72	0.96
I	4.22	4.98
J	1.14	1.38
K	2.20	2.98
L	0.33	0.55
M	2.48	2.98
O	3.70	3.90

MAXIMUM RATINGS

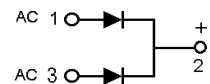
Characteristic	Symbol	MBR10200CT	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	200	V
RMS Reverse Voltage	$V_{R(RMS)}$	140	V
Average Rectifier Forward Current Total Device (Rated V_R , $T_C=125$)	$I_{F(AV)}$	5.0 10	A
Peak Repetitive Forward Current (Rate V_R , Square Wave, 20kHz)	I_{FM}	10	A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfwave, single phase, 60Hz)	I_{FSM}	125	A
Operating and Storage Junction Temperature Range	T_J, T_{STG}	-65 to +175	

THERMAL RESISTANCES

Typical Thermal Resistance junction to case	$R_{\theta jc}$	4.2	/w
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ELECTRIAL CHARACTERISTICS

Characteristic	Symbol	MBR10200CT	Unit
Maximum Instantaneous Forward Voltage ($I_F=5.0$ Amp $T_C=25$) ($I_F=5.0$ Amp $T_C=125$)	V_F	0.95 0.85	V
Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_C=25$) (Rated DC Voltage, $T_C=125$)	I_R	0.01 10	mA



Common cathode
Suffix "C"

MBR10200CT

FIG-1 FORWARD CURRENT DERATING CURVE

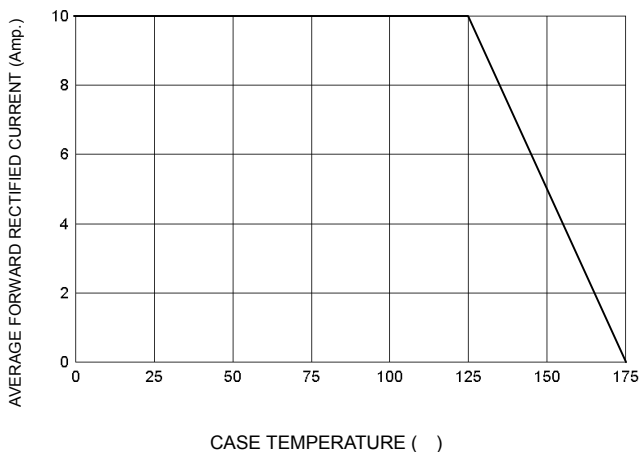


FIG-2 TYPICAL FORWARD CHARACTERISTICS

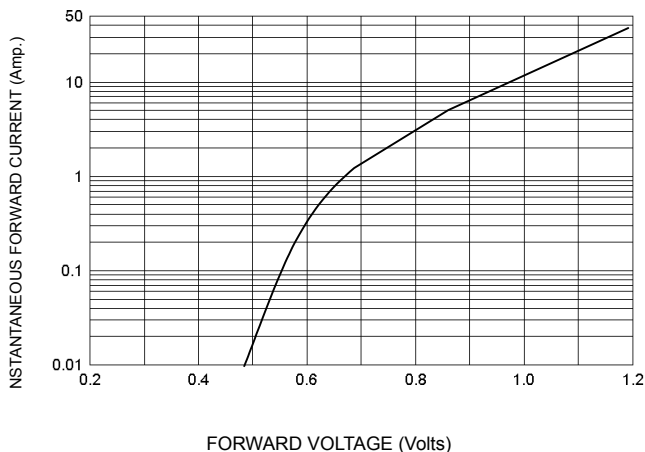


FIG-3 TYPICAL REVERSE CHARACTERISTICS

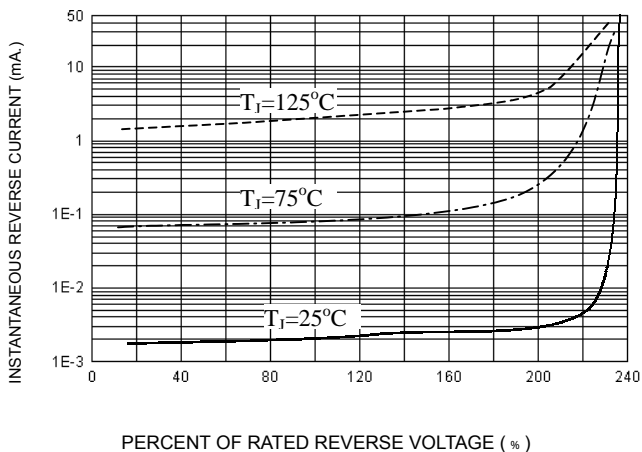


FIG-4 TYPICAL JUNCTION CAPACITANCE

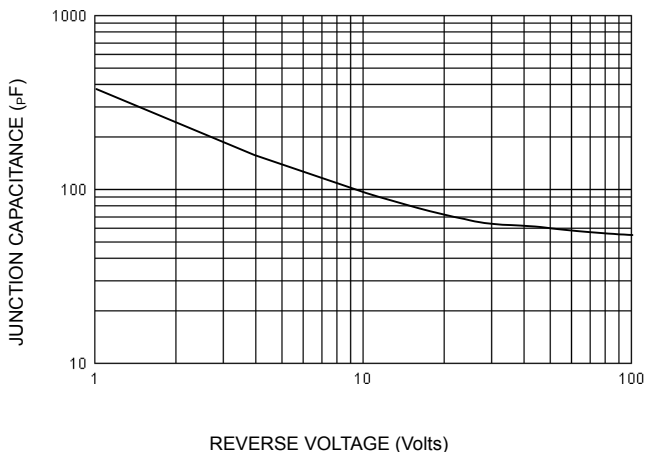


FIG-5 PEAK FORWARD SURGE CURRENT

