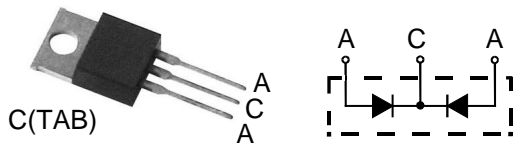


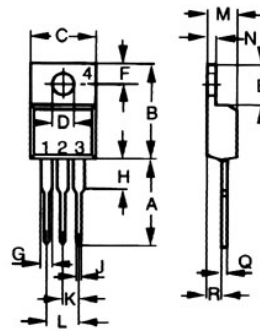
MBR1070CT thru MBR10100CT

Wide Temperature Range and High T_{jm} Schottky Barrier Rectifiers



A=Anode, C=Cathode, TAB=Cathode

Dimensions TO-220AB



Dim.	Inches		Millimeter	
	Min.	Max.	Min.	Max.
A	0.500	0.550	12.70	13.97
B	0.580	0.630	14.73	16.00
C	0.390	0.420	9.91	10.66
D	0.139	0.161	3.54	4.08
E	0.230	0.270	5.85	6.85
F	0.100	0.125	2.54	3.18
G	0.045	0.065	1.15	1.65
H	0.110	0.230	2.79	5.84
J	0.025	0.040	0.64	1.01
K	0.100	BSC	2.54	BSC
M	0.170	0.190	4.32	4.82
N	0.045	0.055	1.14	1.39
Q	0.014	0.022	0.35	0.56
R	0.090	0.110	2.29	2.79

	V_{RRM}	V_{RMS}	V_{DC}
	V	V	V
MBR1070CT	70	49	70
MBR1080CT	80	56	80
MBR1090CT	90	63	90
MBR10100CT	100	70	100

Symbol	Characteristics	Maximum Ratings	Unit
$I_{(AV)}$	Maximum Average Forward Rectified Current @ $T_c=100^\circ\text{C}$	10	A
I_{FSM}	Peak Forward Surge Current 8.3ms Single Half-Sine-Wave Superimposed On Rated Load (JEDEC METHOD)	120	A
dv/dt	Voltage Rate Of Change (Rated V_R)	10000	V/us
V_F	Maximum Forward Voltage (Note 1)	$I_F=5A$ @ $T_J=25^\circ\text{C}$ 0.85 $I_F=5A$ @ $T_J=125^\circ\text{C}$ 0.75 $I_F=10A$ @ $T_J=25^\circ\text{C}$ 0.95 $I_F=10A$ @ $T_J=125^\circ\text{C}$ 0.85	V
I_R	Maximum DC Reverse Current At Rated DC Blocking Voltage	@ $T_J=25^\circ\text{C}$ 0.1 @ $T_J=125^\circ\text{C}$ 15	mA
$R_{\theta JC}$	Typical Thermal Resistance (Note 2)	3.0	$^\circ\text{C}/\text{W}$
C_J	Typical Junction Capacitance Per Element (Note 3)	300	pF
T_J	Operating Temperature Range	-55 to +150	$^\circ\text{C}$
T_{STG}	Storage Temperature Range	-55 to +175	$^\circ\text{C}$

NOTES: 1. 300us Pulse Width, Duty Cycle 2%.
2. Thermal Resistance Junction To Case.
3. Measured At 1.0MHz And Applied Reverse Voltage Of 4.0V DC.

FEATURES

- * Metal of silicon rectifier, majority carrier conducton
- * Guard ring for transient protection
- * Low power loss, high efficiency
- * High current capability, low V_F
- * High surge capacity
- * For use in low voltage, high frequency inverters, free whelling, and polarity protection applications

MECHANICAL DATA

- * Case: TO-220AB molded plastic
- * Polarity: As marked on the body
- * Weight: 0.08 ounces, 2.24 grams
- * Mounting position: Any

Sirectifier®

MBR1070CT thru MBR10100CT

Wide Temperature Range and High T_{jm} Schottky Barrier Rectifiers

