

Schottky Barrier Rectifier

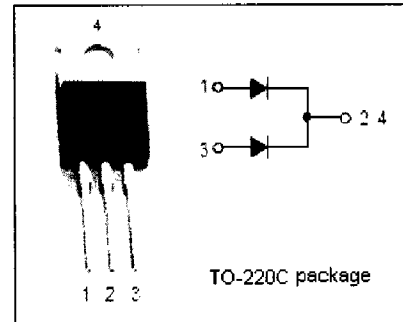
MBR20100CT

FEATURES

- Low Forward Voltage
- 150°C Operating Junction Temperature
- Guaranteed Reverse Avalanche
- Low Power Loss/High Efficiency
- High Surge Capacity
- Low Stored Charge Majority Carrier Conduction
- Dual Rectifier Conduction, Positive Center Tap

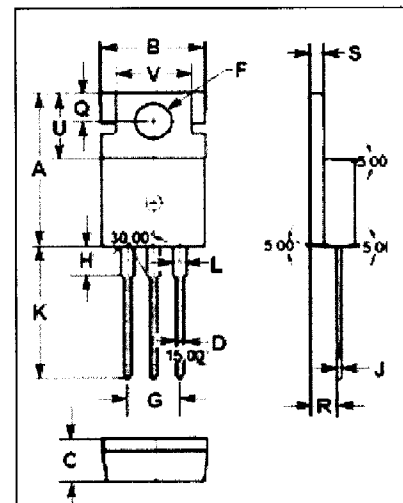
MECHANICAL CHARACTERISTICS

- Case: Epoxy, Molded
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260°C Max. for 10 Seconds

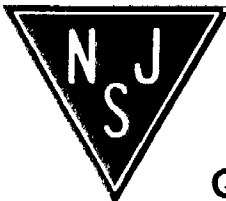


ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{RRM} V_{RWM} V_R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	100	V
$I_{F(AV)}$	Average Rectified Forward Current (Rated V_R , $T_C=133^\circ\text{C}$)	10	A
I_{FRM}	Peak Repetitive Forward Current (Rated V_R , Square Wave, 20kHz) $T_C=133^\circ\text{C}$	20	A
I_{FSM}	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	150	A
I_{RRM}	Peak Repetitive Reverse Current (2.0 μs , 1.0kHz)	0.5	A
T_J	Junction Temperature	-65~150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~175	$^\circ\text{C}$
dv/dt	Voltage Rate of Change (Rated V_R)	10,000	V/ μs



DIM	mm	
	MIN	MAX
A	15.70	15.90
B	9.90	10.10
C	4.20	4.40
D	0.70	0.90
F	3.40	3.60
G	4.98	5.18
H	2.70	2.90
J	0.44	0.46
K	13.20	13.40
L	1.10	1.30
Q	2.70	2.90
R	2.50	2.70
S	1.29	1.31
U	6.45	6.65
V	8.66	8.86



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Quality Semi-Conductors

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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.0	$^{\circ}C/W$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	60	$^{\circ}C/W$

ELECTRICAL CHARACTERISTICS (Pulse Test: Pulse Width=300 μ s, Duty Cycle \leq 2%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F=10A; T_C=125^{\circ}C$ $I_F=10A; T_C=25^{\circ}C$ $I_F=20A; T_C=125^{\circ}C$ $I_F=20A; T_C=25^{\circ}C$	0.75 0.85 0.85 0.95	V
I_R	Maximum Instantaneous Reverse Current	Rated DC Voltage, $T_C=125^{\circ}C$ Rated DC Voltage, $T_C=25^{\circ}C$	6.0 0.1	mA