



Micro Commercial Components

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20736 Marilla Street Chatsworth
CA 91311

Phone: (818) 701-4933
Fax: (818) 701-4939

MBRD820CT THRU MBRD8100CT

8 Amp Schottky Barrier Rectifier 20 to 100 Volts

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0.
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- For use in low voltage ,high frequency inverters, free wheeling , and polarity protection applications
- High temperature soldering guaranteed:250 C/10 seconds, 0.25"(6.35mm)from case

Maximum Ratings

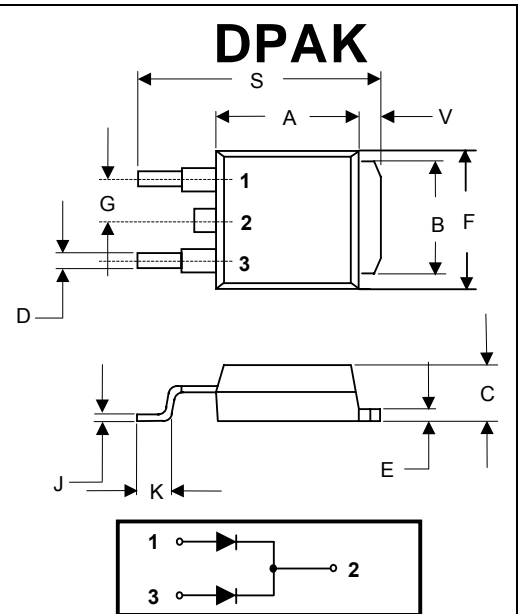
- Operating Temperature: 820CT-840CT: - 65°C to +125°C
850CT-8100CT: - 65°C to +150°C
- Storage Temperature: -65°C to +150°C

MCC Part Number	Device Marking	Max Peak Reverse Voltage	Max RMS Voltage	Max DC Blocking Voltage
MBRD820CT	MBRD820CT	20V	14V	20V
MBRD830CT	MBRD830CT	30V	21V	30V
MBRD840CT	MBRD840CT	40V	28V	40V
MBRD850CT	MBRD850CT	50V	35V	50V
MBRD860CT	MBRD860CT	60V	42V	60V
MBRD880CT	MBRD880CT	80V	56V	80V
MBRD8100CT	MBRD8100CT	100V	70V	100V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	4A 8A	Per Diode Per Device
Peak Forward Surge Current	I_{FSM}	150A	8.3ms, half sine
Maximum Forward Voltage*	V_F	0.65V 0.75V 0.85V	$I_{FM} = 5A$
Maximum Reverse Current At Rated Blocking Voltage*	I_R	1.0mA 50mA 25mA	$T_A = 25^\circ C$ $T_A = 100^\circ C$ $T_A = 100^\circ C$
Peak Repetitive Forward Current	I_{FRM}	20A	Square Wave, 20 KHz, $T_C = 105^\circ C$
Thermal Resistance	R_{JC}	2.5°C/W	-----

*Pulse test: Pulse width 300 μsec, Duty cycle 1%



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.235	0.245	5.97	6.22	
B	0.205	0.215	5.21	5.46	
C	0.086	0.094	2.19	2.38	
D	0.025	0.035	0.64	0.89	
E	0.035	0.045	0.99	1.14	
F	0.250	0.265	6.35	6.73	
G	0.090		2.28		
J	0.018	0.023	0.48	0.58	
K	0.020	---	0.51	---	
S	0.370	0.410	9.40	10.42	
V	0.035	0.050	0.88	1.27	

MBRD820CT-MBRD8100CT

FIG.1-FORWARD CURRENT DERATING CURVE

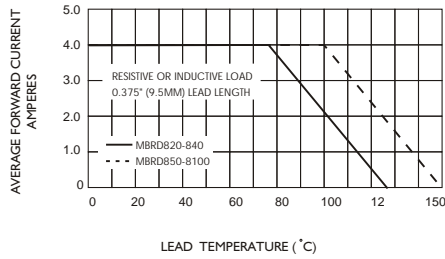


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

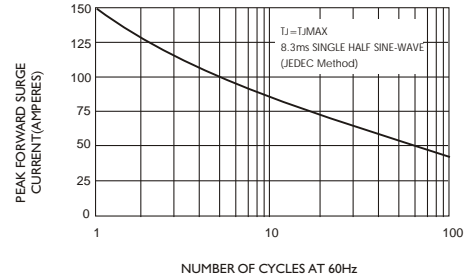


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

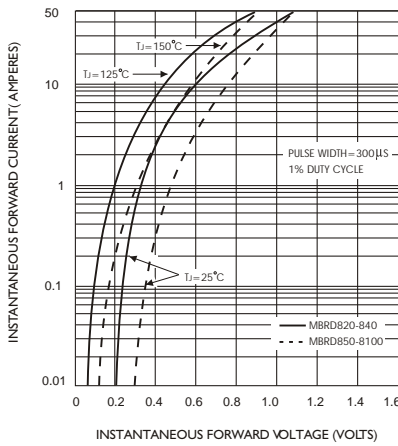


FIG.4-TYPICAL REVERSE CHARACTERISTICS

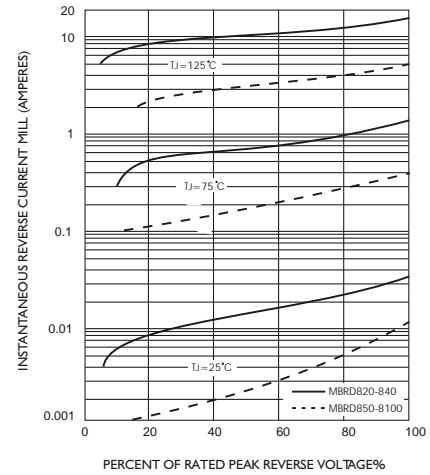


FIG.5-TYPICAL JUNCTION CAPACITANCE

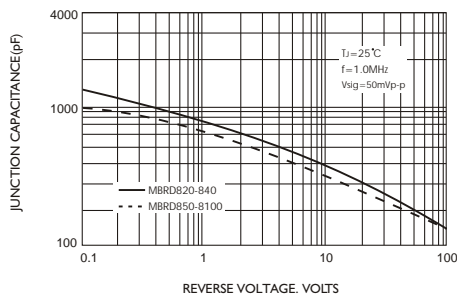


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

