Micro Commercial Components

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MBRD620CT THRU MBRD660CT

6 Amp Schottky Barrier Rectifier 20 to 60 Volts

Features

- Extremely Fast Switching
- Extremely Low Forward Drop.
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0

Maximum Ratings

- Operating Temperature:- 65℃ to +150℃
- Storage Temperature: -65℃ to +175℃
- Maximum Thermal Resistance (Per Leg):
  6℃/W Junction To Case
  80℃/W Junction To Ambient

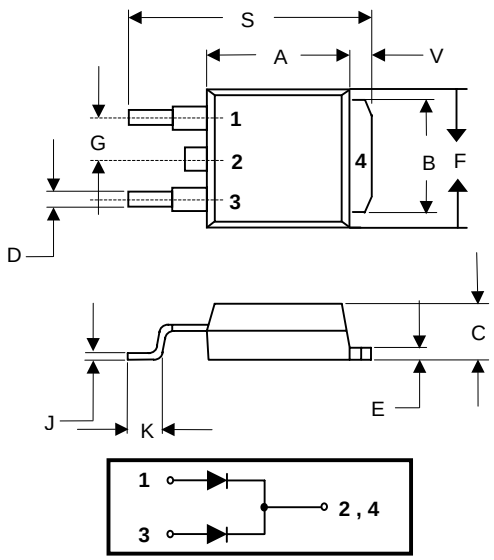
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBRD620CT	MBRD620CT	20V	14V	20V
MBRD630CT	MBRD630CT	30V	21V	30V
MBRD640CT	MBRD640CT	40V	28V	40V
MBRD650CT	MBRD650CT	50V	35V	50V
MBRD660CT	MBRD660CT	60V	42V	60V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current (T_C = 100℃)	$I_{F(AV)}$	3.0A 6.0A	Per Diode Per Device
Peak Forward Surge Current	I_{FSM}	75A	8.3ms, half sine
Maximum Instantaneous Forward Voltage*	V_F	.70V .65V .90V .85V	I_{FM} = 3.0A; T_C = 25℃ I_{FM} = 3.0A; T_C =1 25℃ I_{FM} =6.0A; T_C = 25℃ I_{FM} = 6.0A; T_C =1 25℃
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	.1mA 15mA	T_A = 25℃ T_A = 125℃
Peak Repetitive Forward Current, T_C=130℃, per diode	I_{FRM}	6A	Rated V_R, Square Wave, 20 KHz
Peak Repetitive Reverse Surge Current	I_{RRM}	1A	2 μ s, 1 KHz

*Pulse test: Pulse width 300 μsec, Duty cycle 2%

DPACK



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
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	

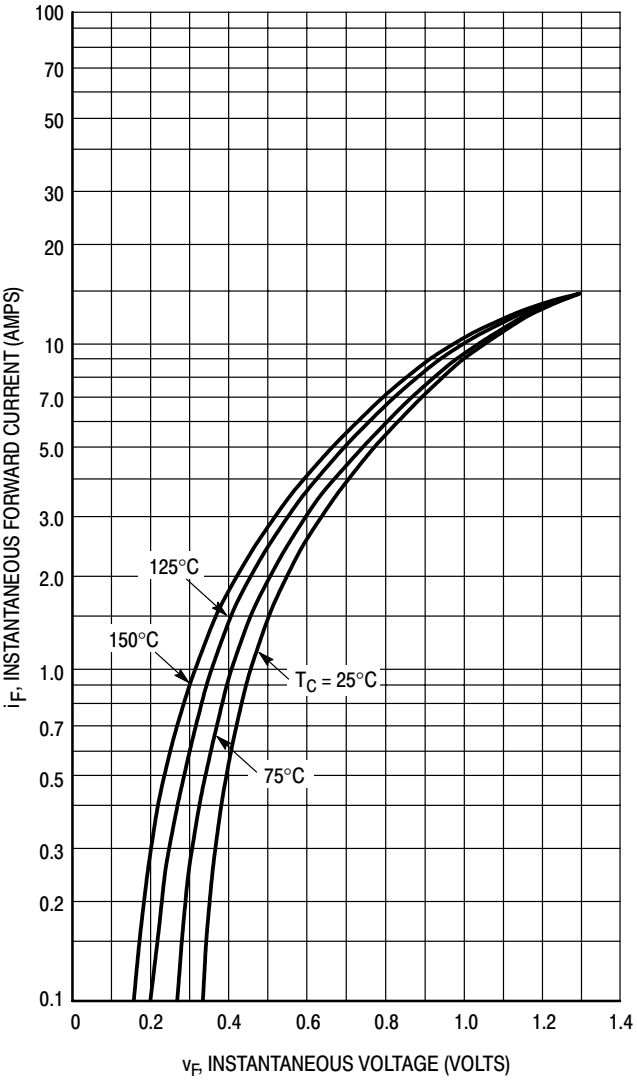
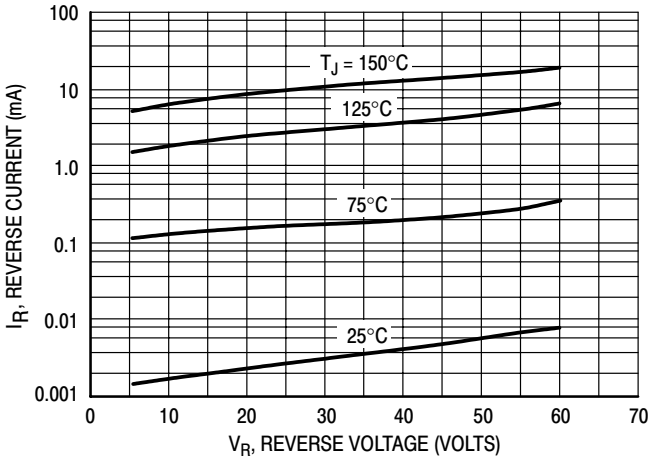


Figure 1. Typical Forward Voltage, Per Leg



*The curves shown are typical for the highest voltage device in the voltage grouping. Typical reverse current for lower voltage selections can be estimated from these curves if V_R is sufficient below rated V_R.

Figure 2. Typical Reverse Current,* Per Leg

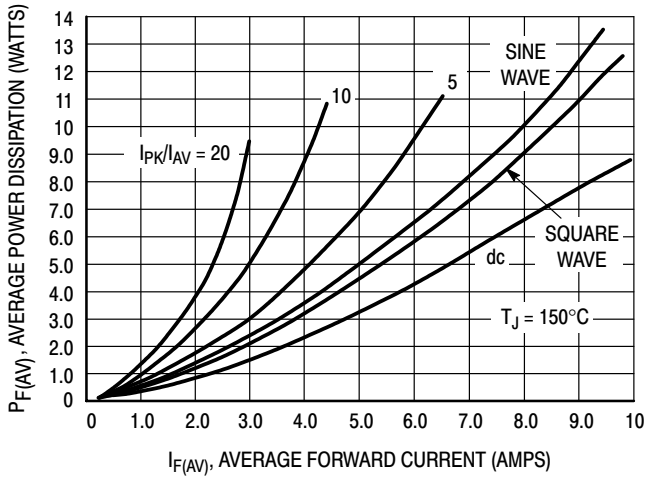


Figure 3. Average Power Dissipation, Per Leg

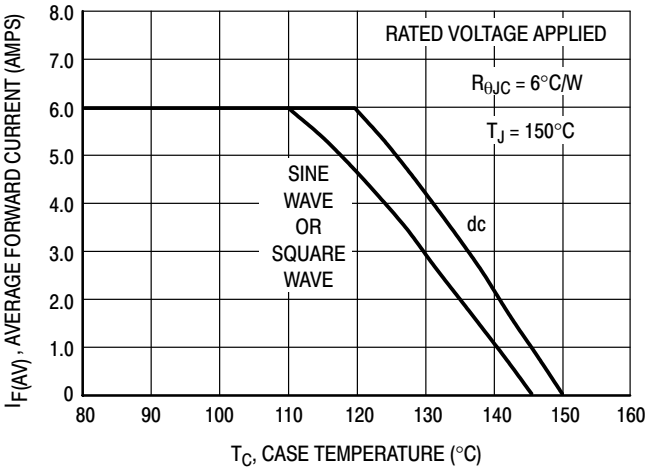


Figure 4. Current Derating, Case, Per Leg

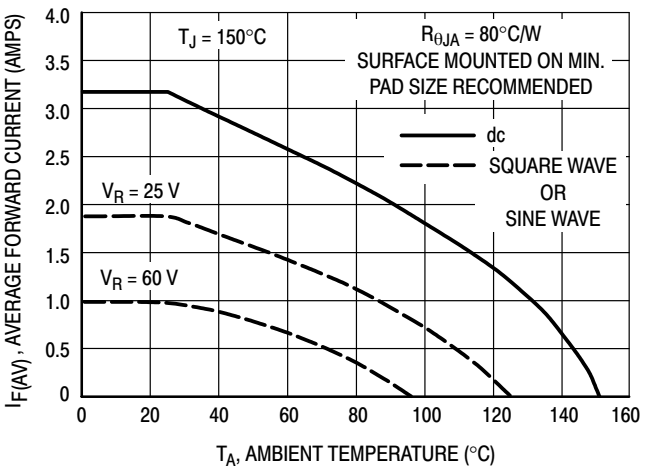


Figure 5. Current Derating, Ambient, Per Leg

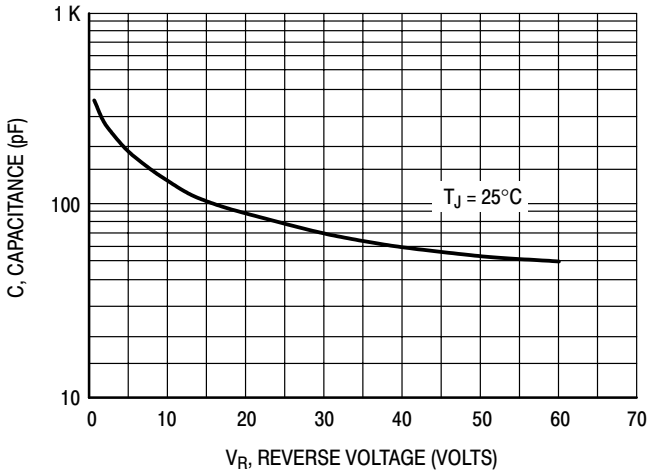


Figure 6. Typical Capacitance, Per Leg

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