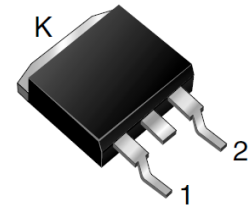


Features

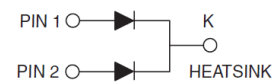
- Plastic package has underwriters Laboratory Flammability Classification 94V-0
- For surface mounted application
- Low forward voltage, high efficiency
- Guarding for over voltage protection
- For use in low voltage, high frequency inverters
- Free wheeling and polarity protection applications



CASE:TO-263 (D2PAK)

Mechanical Characteristics

- Case: Epoxy, Molded
- Weight: 1.4 grams (approximately)
- Finish: All external surfaces corrosion resistant and terminal leads are solderable
- Lead temperature for soldering purposes: 260°C Max. for 10 sec
- Shipped 50 units per plastic tube or tape reel packing 800/reel



Maximum Ratings and Electrical Characteristics (T_c=25°C unless otherwise noted)

PARAMETER	TEST CONDITIONS		SYMBOL	MBRB20200CT	UNIT
Maximum repetitive peak reverse voltage			V _{RRM}	200	V
Working peak reverse voltage			V _{RWM}	200	V
Maximum DC blocking voltage			V _{DC}	200	V
Maximum average forward rectified current at T _c =105°C total device per diode			I _{F(AV)}	20 10	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode			I _{FSM}	200	A
Peak repetitive reverse current per leg at t _p =2.0us , 1KHz			I _{RRM}	0.5	A
Voltage rate of change (rated VR)			DV/dt	10000	V/us
Operating junction temperature range			T _J	-55 to+150	°C
Storage temperature range			T _{STG}	-55 to+150	°C
Maximum instantaneous forward voltage per leg	I _F =20A I _F =20A I _F =10A I _F =10A	T _c =25°C T _c =125°C T _c =25°C T _c =125°C	V _F	1.0 0.9 0.9 0.8	V
Maximum reverse current per leg at working peak Reverse voltage			T _J =25°C T _J =100°C	I _R 200 15	uA mA

Thermal Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Max	Unit
R _{θJC}	Thermal Resistance, Junction to Case per Leg	2.0	°C /W

Note:

1. Pulse test:300us pulse width, duty cycle=2%

Rating and Characteristic Curves (Tc=25°C Unless otherwise noted)

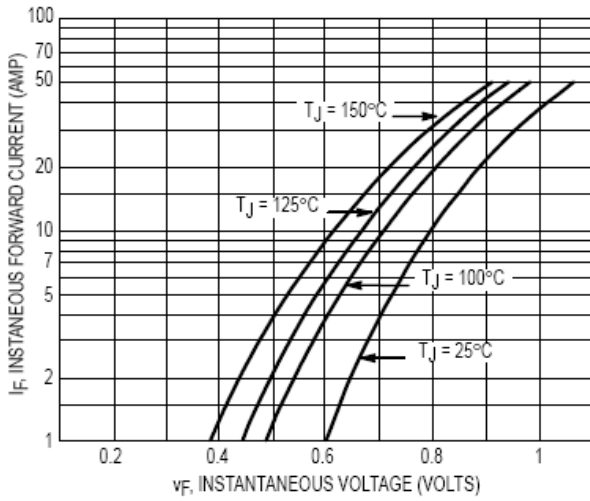


Figure 1. Typical Forward Voltage (Per Leg)

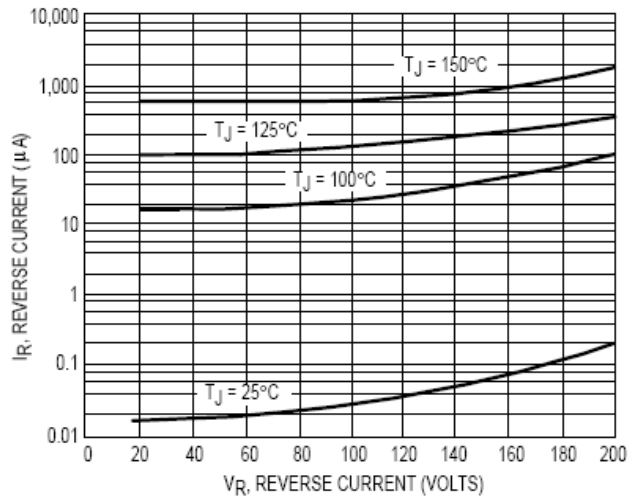


Figure 2. Typical Reverse Current (Per Leg)

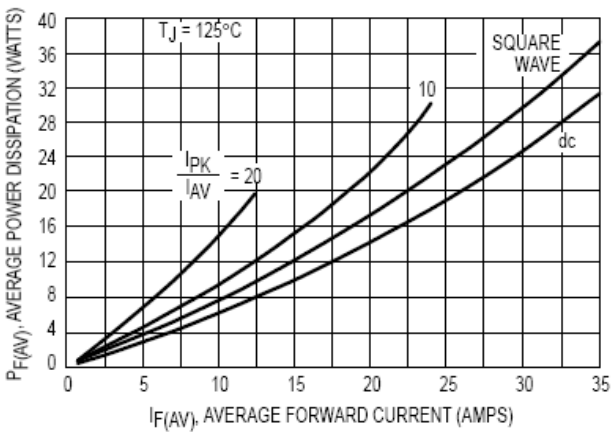


Figure 3. Forward Power Dissipation

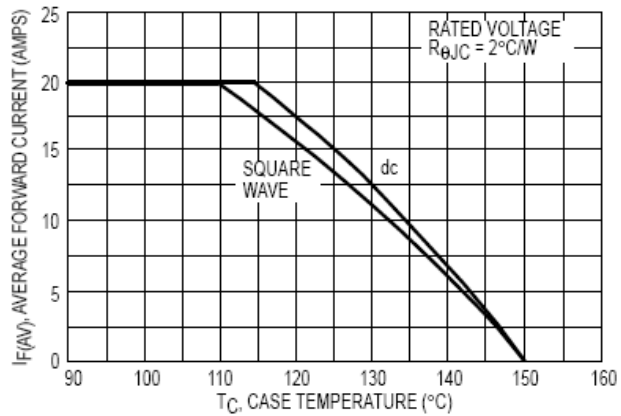


Figure 4. Current Derating, Case

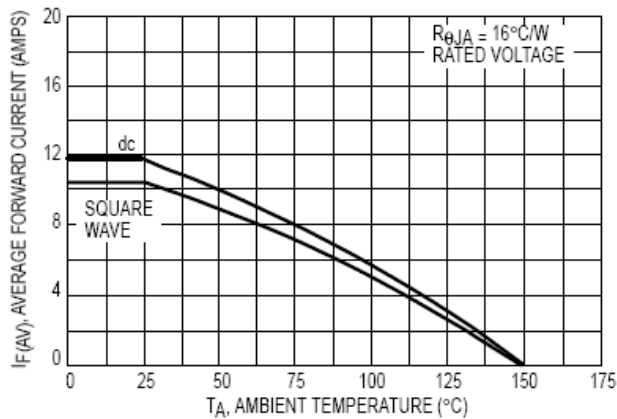


Figure 5. Current Derating, Ambient

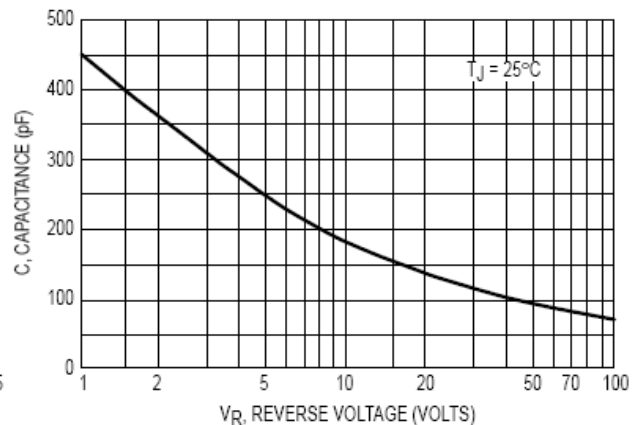
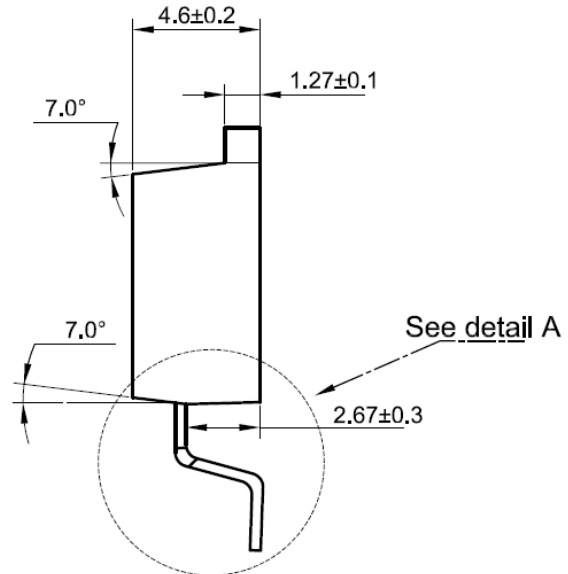
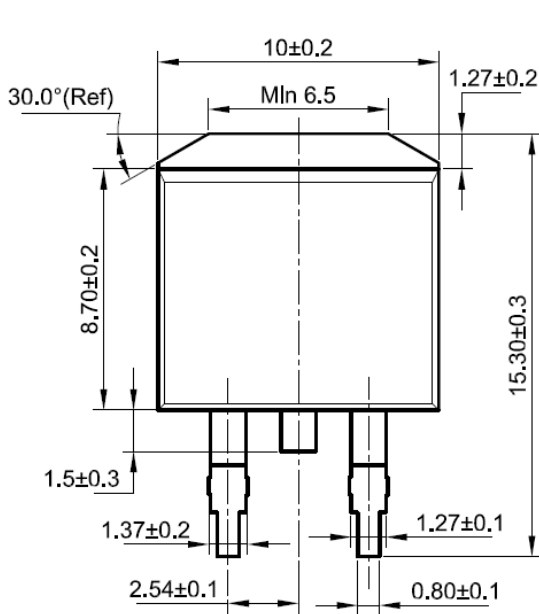
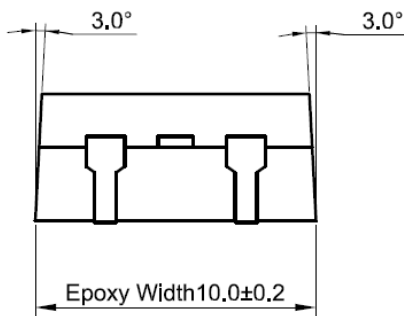
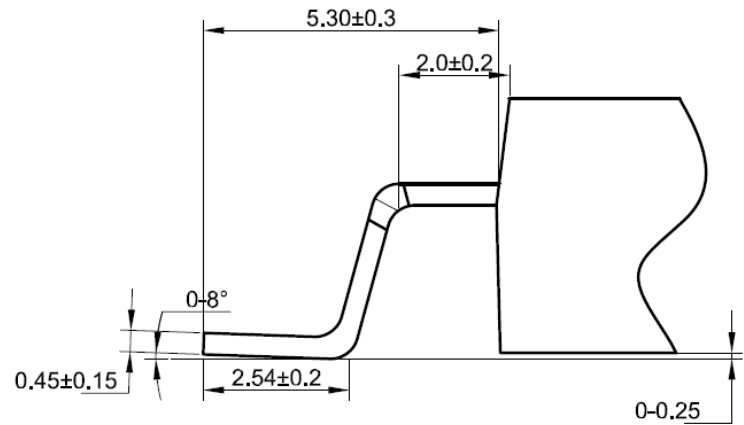


Figure 6. Typical Capacitance (Per Leg)

Package Outline (TO-263) UNIT:MM

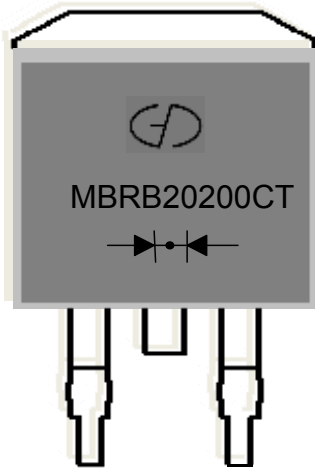


Detail A



Lead Frame Material : Copper Plating: Pure Tin Plating

Marking



1. Part Name : MBRB20200CT

2. Logo Mark: 

3. Polarity: 