MBR30200SCG

30.0A Surface Mount Schottky Barrier Rectifiers - 200V

Features

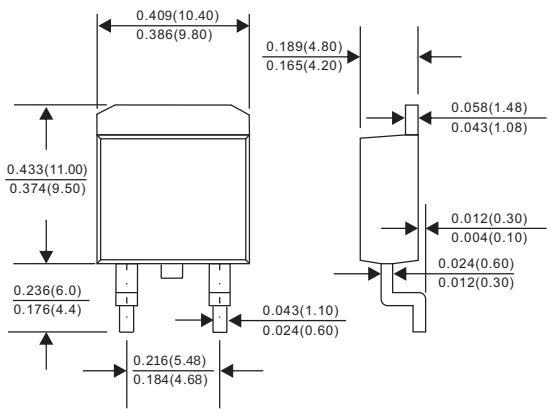
- High current capability
- Low forward voltage drop
- Low power loss, high efficiency
- High surge capability
- High temperature soldering guaranteed
- Compliant to Halogen-free

Mechanical Data

- Epoxy:UL94-V0 rated flame retardant
- Case: TO-263AB/D2PAK
- Terminals: Lead solderable per MIL-STD-202, Method 208
- Mounting position: any

Package outline

TO-263AB/D2PAK



Dimensions in inches and (millimeters)

Maximum ratings and Electrical Characteristics (AT T_A=25°C unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current		I_O			30.0	A
Forward surge current	8.3ms single half sine-wave (JEDEC methode)	I_{FSM}			200	A
Reverse current	$V_R = V_{RRM}$ T_J = 25°C	I_R			0.05	mA
	$V_R = V_{RRM}$ T_J = 125°C				20	
Junction capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		400		pF
Thermal resistance (1)	Junction to Ambient	$R_{\theta JA}$		45		°C/W
Storage temperature		T_{STG}	-55		+175	°C

NOTE：(1) P.C.B. mounted with 10cm*10cm*1mm copper pad areas.

SYMBOLS	V_{RRM} *1 (V)	V_{RMS} *2 (V)	V_R *3 (V)	V_F *4 (V)	Operating temperature T_J, (°C)
MBR30200SCG	200	140	200	0.95	-55 to +175

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage
IF = 15.0A, 25°C

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Rating and characteristic curves

Fig.1 TYPICAL FORWARD CURRENT DERATING CURVE

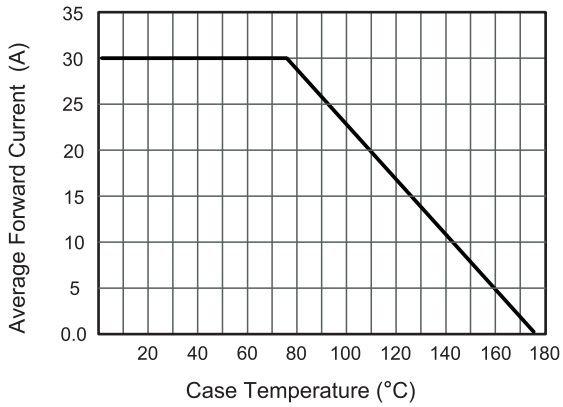


Fig.2 Typical Reverse Characteristics

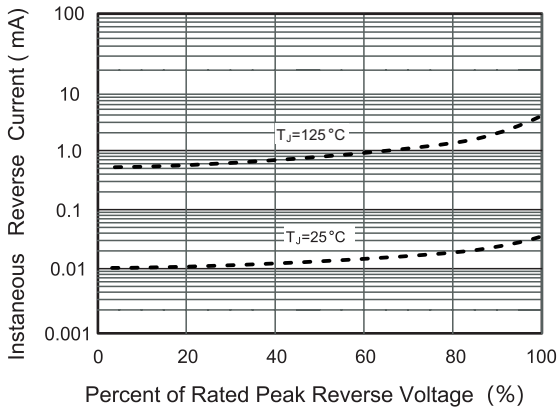


Fig.3 Typical Forward Characteristic(per leg)

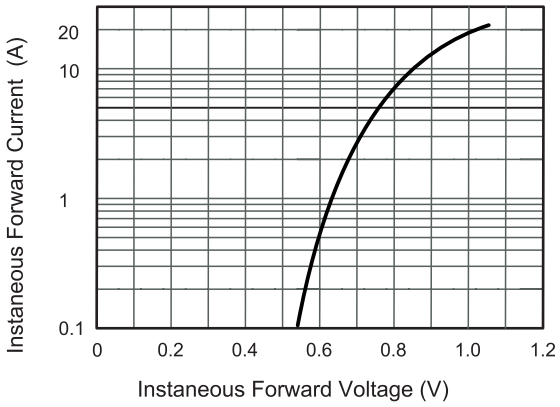


Fig.4 Typical Junction Capacitance

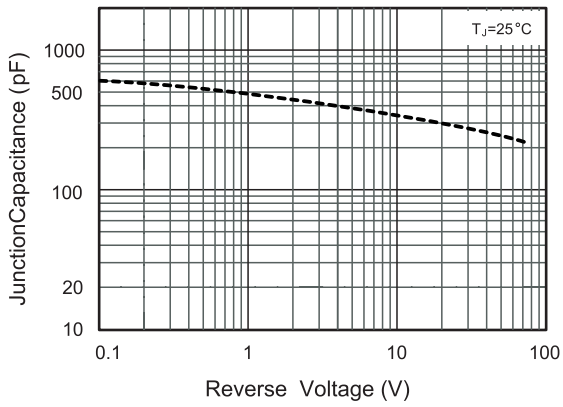


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

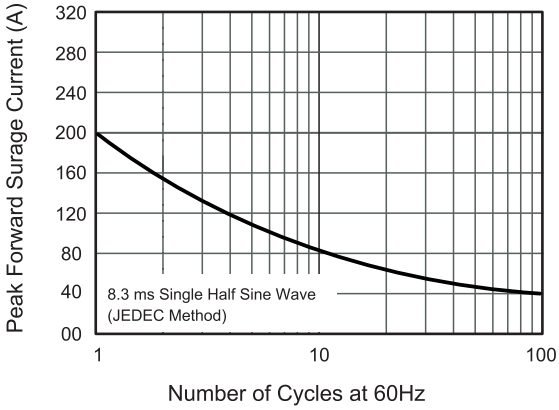
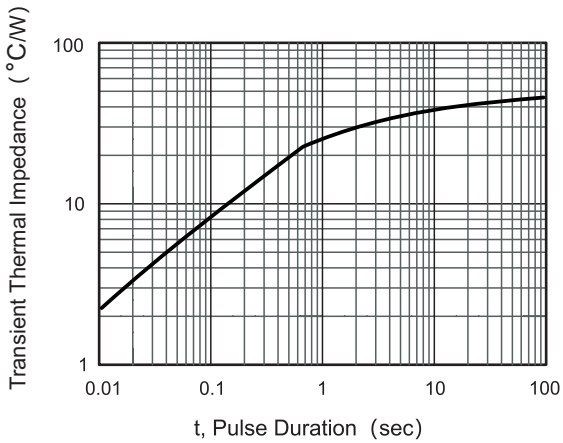


Fig.6- Typical Transient Thermal Impedance



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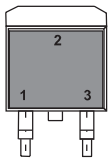
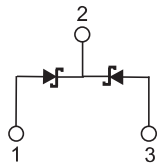
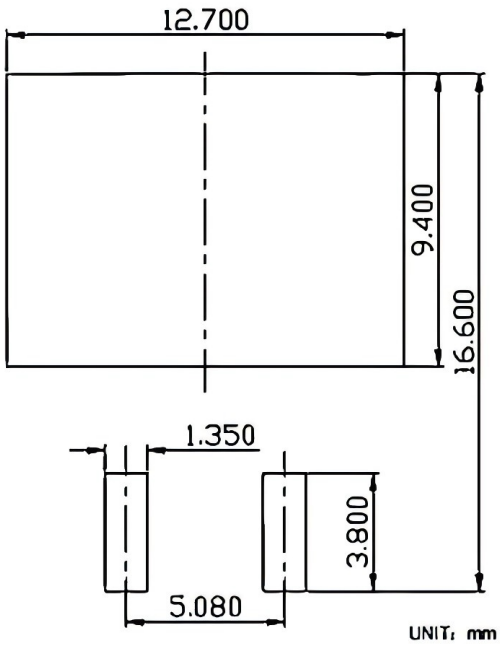
Pinning information

Pin	Simplified outline	Symbol
Pin1 anode Pin2 cathode Pin3 anode		

Marking

Type number	Marking code
MBR30200SCG	MBR30200SCG

Suggested solder pad layout



SUGGESTED SOLDER PAD LAYOUT