



SCHOTTKY BARRIER RECTIFIERS

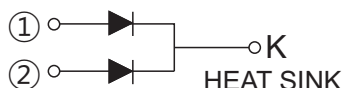
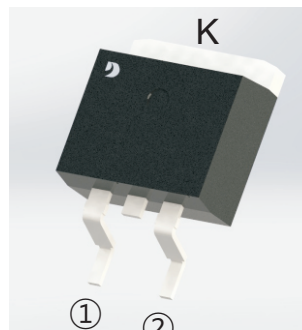
Reverse Voltage - 40 to 200 V

Forward Current - 10 A

FEATURES

- High current capability
- Low forward voltage drop
- Low power loss, high efficiency
- High surge capability
- High temperature soldering guaranteed
- Mounting position: any

TO-263W(D²PAK)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

CHARACTERISTICS	SYMBOL	MBR1040GT	MBR1045GT	MBR1060GT	MBR10100GT	MBR10150GT	MBR10200GT	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	45	60	100	150	200	V
Maximum RMS voltage	V_{RMS}	28	32	42	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	40	45	60	100	150	200	V
Maximum Average Forward Rectified Current per diode per device	$I_{F(AV)}$	5 10						A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) per diode	I_{FSM}	100						A
Max Instantaneous Forward Voltage at 5 A DC Per leg	V_F	0.70		0.75	0.85	0.90	0.92	V
Maximum DC Reverse Current at Rated DC Reverse Voltage $T_a = 25^\circ\text{C}$ $T_a = 125^\circ\text{C}$	I_R	0.1 20			0.05 20			mA
Typical Junction Capacitance ⁽¹⁾	C_j	500		300				pF
Typical Thermal Resistance ⁽²⁾	$R_{\theta JA}$	45						°C/W
Operating Junction Temperature Range	T_j	-55 ~ +150				-55 ~ +175		°C
Storage Temperature Range	T_{stg}	-55 ~ +150				-55 ~ +175		°C

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2) P.C.B. mounted with 10cmX10cmX1mm copper pad areas.



Fig.1 TYPICAL FORWARD CURRENT DERATING CURVE

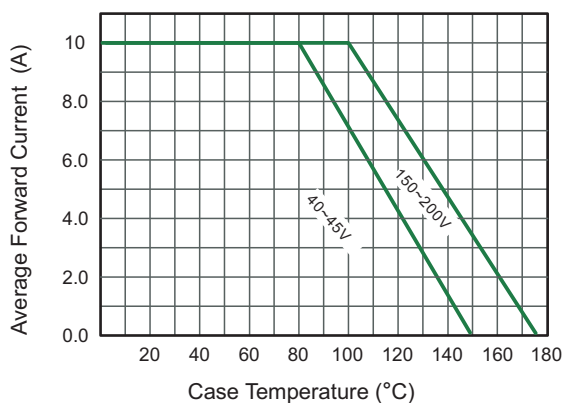


Fig.2 Typical Reverse Characteristics

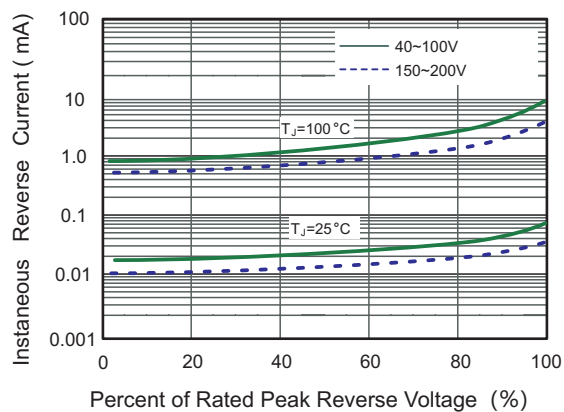


Fig.3 Typical Forward Characteristic(per leg)

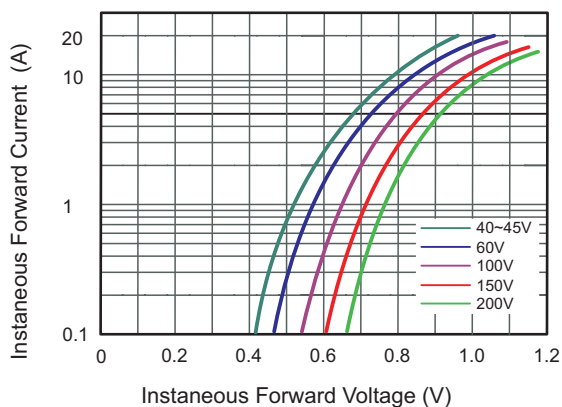


Fig.4 Typical Junction Capacitance

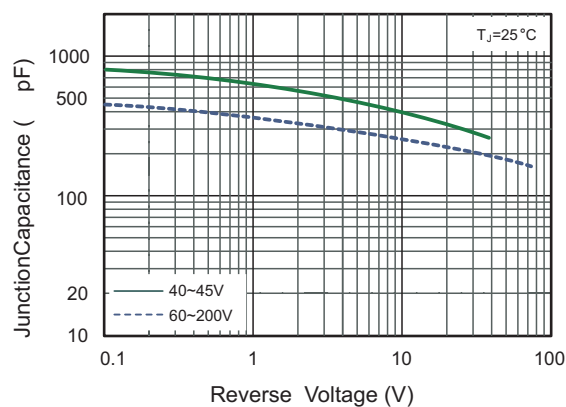


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

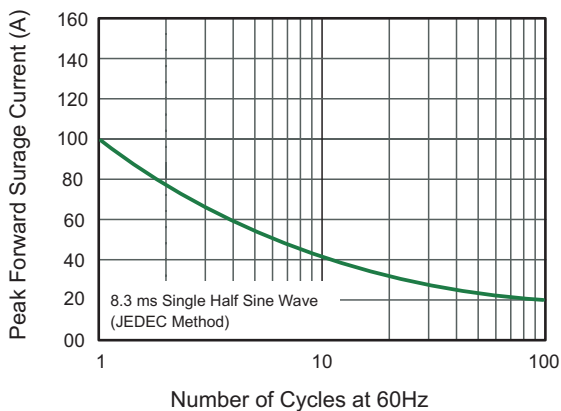
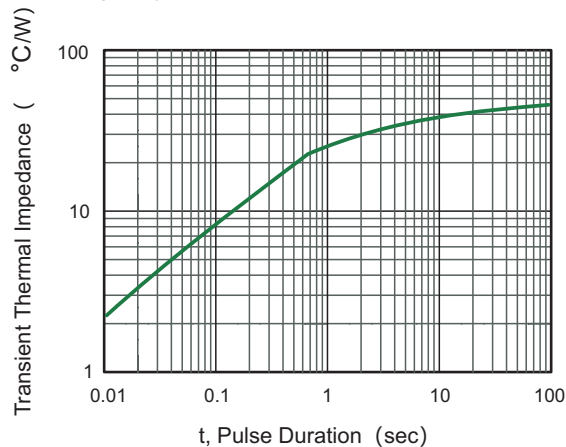
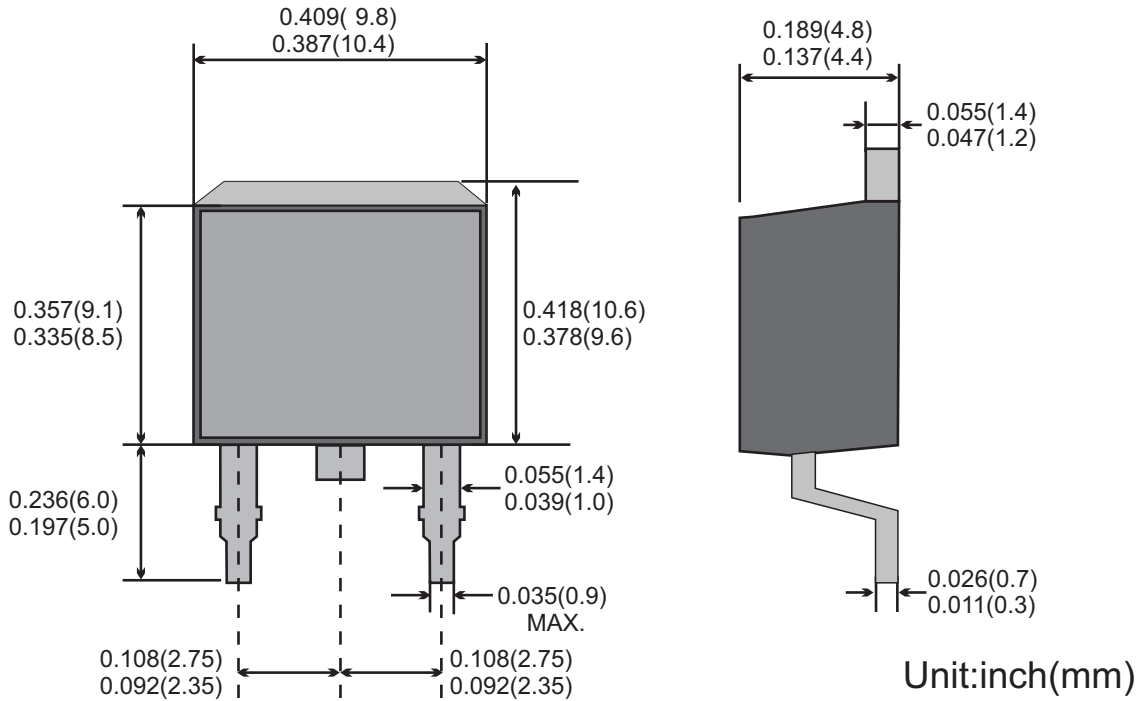


Fig.6- Typical Transient Thermal Impedance

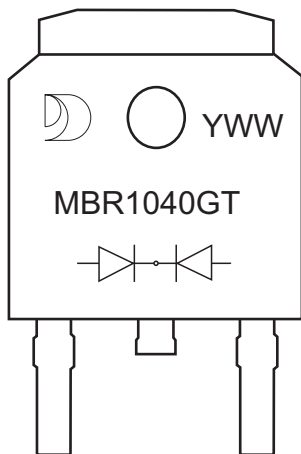




TO-263W(D-P²AK) Package Outline Dimensions



MARKING DIAGRAM



YWW: Date Code
Y:Years(0~9)
WW:Week
MBR1040GT: Product name
(NOTE: The weekly code is based on the actual number of weeks in the calendar year.)



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