

Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 40 to 200 V

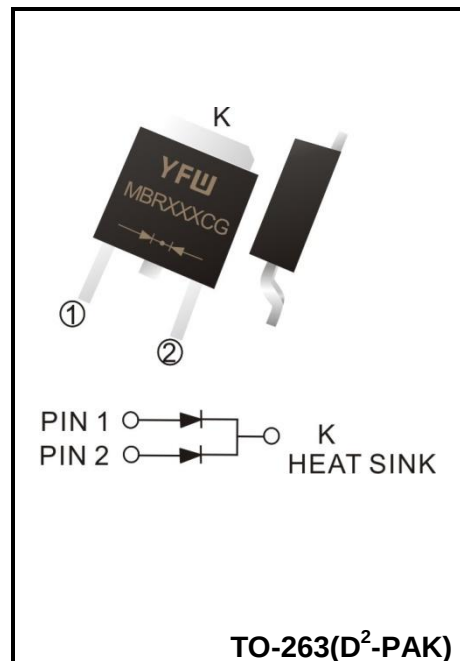
Forward Current - 30 A

FEATURES

- ◆ High current capability
- ◆ Low forward voltage drop
- ◆ High surge capability
- ◆ High temperature soldering guaranteed
- ◆ Mounting position: any
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ◆ Case: TO-263(D²-PAK)
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 1.16g / 0.04oz



Maximum Ratings and Electrical characteristics

Ratings at 25 ° ambient temperature unless otherwise specified.

Parameter	Symbols	MBR3040CG	MBR3045CG	MBR3060CG	MBR30100CG	MBR30150CG	MBR30200CG	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	45	60	100	150	200	V
Maximum RMS voltage	V_{RMS}	28	31.5	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	$I_{F(AV)}$	15 30						A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load (JEDEC method)	I_{FSM}	200						A
Maximum Instantaneous Forward Voltage at 15 A	V_F	0.65		0.70	0.85	0.90	0.92	V
Maximum DC Reverse Current at Rated DC Reverse Voltage $T_A = 25^{\circ}C$ $T_A = 125^{\circ}C$	I_R	0.1 20			0.05 20			mA
Typical Junction Capacitance ⁽¹⁾	C_j	600		400				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 10cm X 10cmX1mm copper pad areas.

Fig.1 TYPICAL FORWARD CURRENT DERATING CURVE

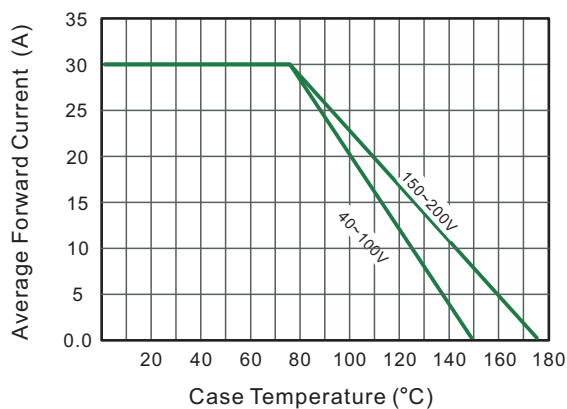


Fig.2 Typical Reverse Characteristics

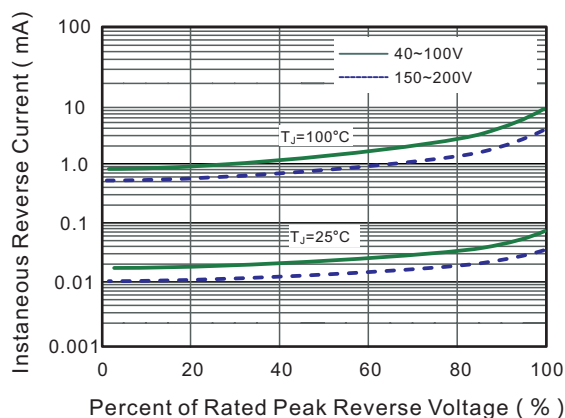


Fig.3 Typical Forward Characteristic

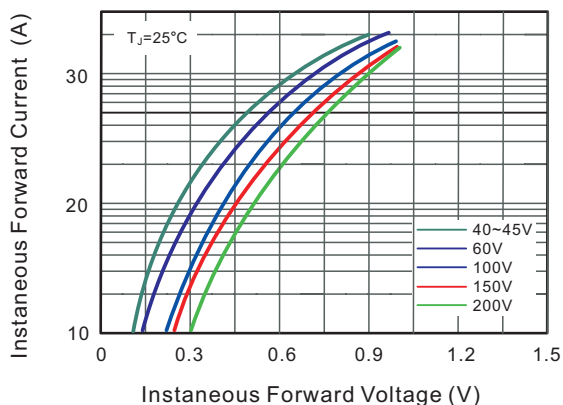


Fig.4 Typical Junction Capacitance

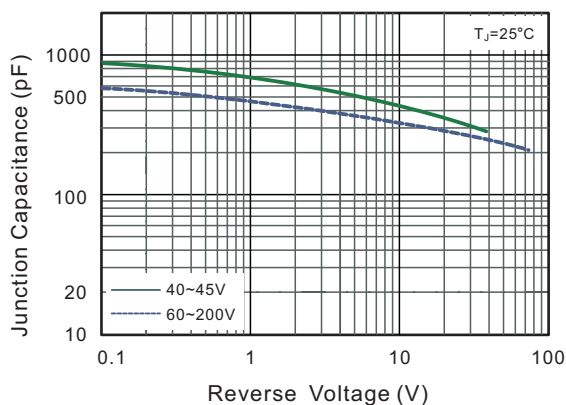


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

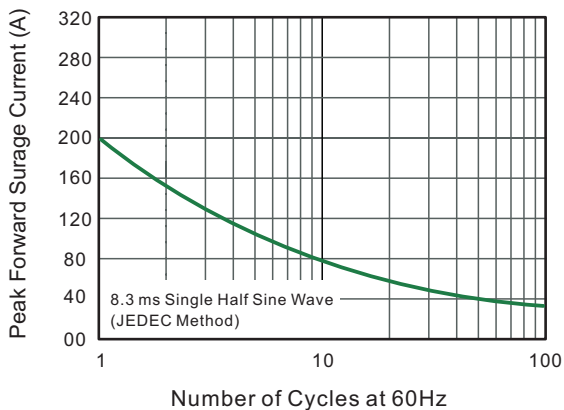
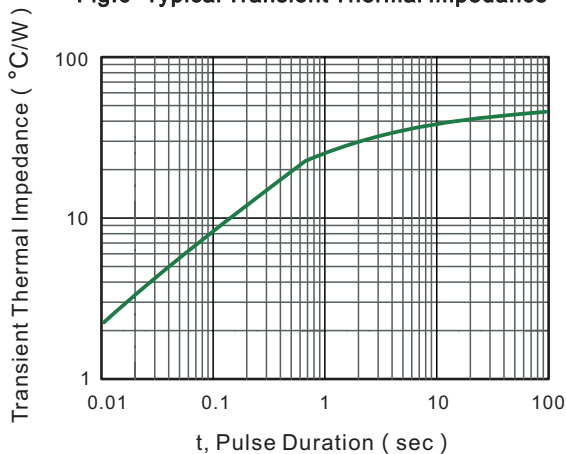
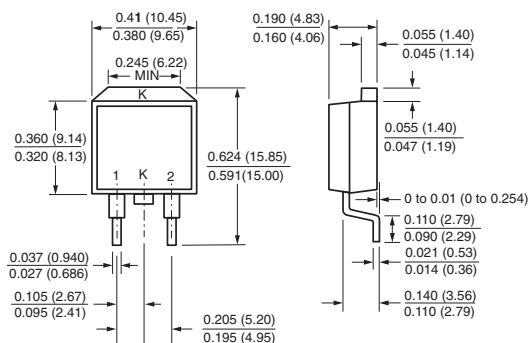


Fig.6- Typical Transient Thermal Impedance

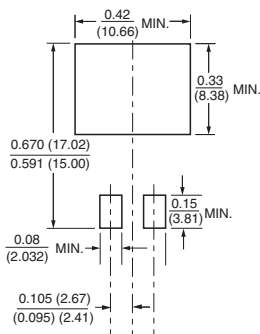


Package Outline

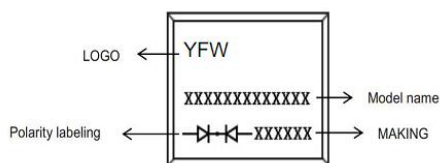
TO-263



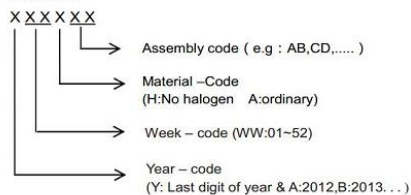
Mounting Pad Layout



Marking on the body



MAKING:



Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
TO-263	Tube	50	EIA-481-1