



MBRB2060CT

Schottky Barrier Rectifier

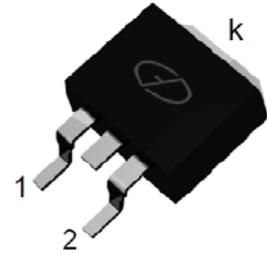
Reverse Voltage 60 Volts Forward Current 20 Amperes

Features

Low $V_F=0.51V$ at $I_F=5A$ ($25^\circ C$)

Low $V_F=0.63V$ at $I_F=10A$ ($25^\circ C$)

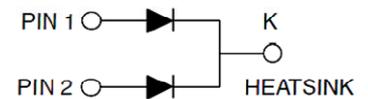
- Plastic package has underwriters Laboratory Flammability Classification 94V-0
- Dual rectifier construction, positive center tap
- Metal of silicon rectifier, majority carrier conduction
- Low forward voltage, high efficiency
- Guarding for over voltage protection



Package: TO-263

Mechanical Data

- Case: Epoxy, Molded
- Weight: 1.4grams (approximately)
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: $260^\circ C$ Max. for 10 sec
- Shipped 50 units per plastic tube or tape reel packing 800/reel



Maximum Ratings & Electrical Characteristics

($T_A=25^\circ C$ unless otherwise noted)

PARAMETER	TEST CONDITIONS		SYMBOL	MBRB2060CT	UNIT
Maximum repetitive peak reverse voltage			V_{RRM}	60	V
Working peak reverse voltage			V_{RWM}	60	V
Maximum DC blocking voltage			V_{DC}	60	V
Maximum average forward rectified current at $T_c=105^\circ C$ 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}	150	A
Peak repetitive reverse current per leg at $t_p=2.0\mu s$, 1KHz			I_{RRM}	1.0	A
Voltage rate of change (rated V_R)			DV/dt	10000	V/ μs
Operating junction temperature range			T_J	-55 to +150	$^\circ C$
Storage temperature range			T_{STG}	-55 to +150	$^\circ C$
Maximum instantaneous forward voltage per leg	$I_F=10A$ $I_F=10A$	$T_C=25^\circ C$ $T_C=125^\circ C$	V_F	0.68 (0.63 TYP) 0.61	V
Maximum reverse current per leg at working peak Reverse voltage		$T_J=25^\circ C$ $T_J=100^\circ C$	I_R	100 15	μA mA
Thermal Characteristics $T_A=25^\circ C$ unless otherwise noted					
Symbol	Parameter		TYP (TO-263)		Unit
R θ JC	Thermal Resistance, Junction to Case per Leg		2.0		$^\circ C/W$
R θ JA	Thermal Resistance, Junction to Ambient per Leg		62.5		$^\circ C/W$

Note: Pulse test: 300 μs pulse width, duty cycle=2%



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Ratings and Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise noted)

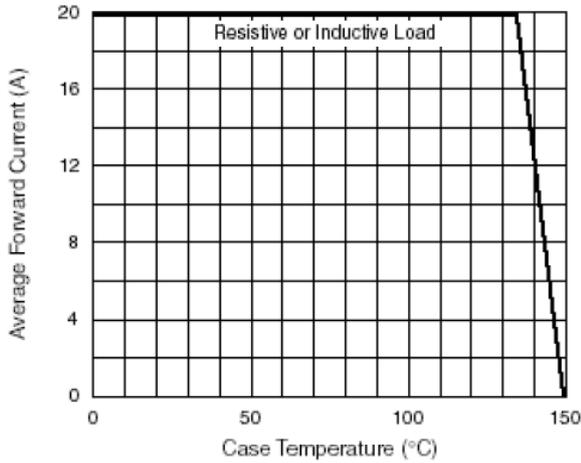


Figure 1. Forward Derating Curve (Total)

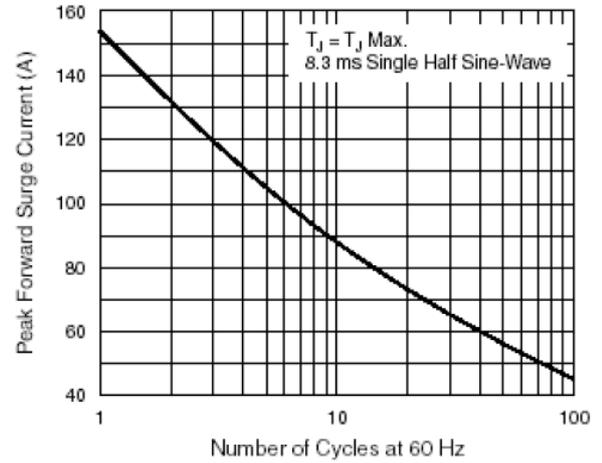


Figure 2. Maximum Non-Repetitive Peak Forward Surge

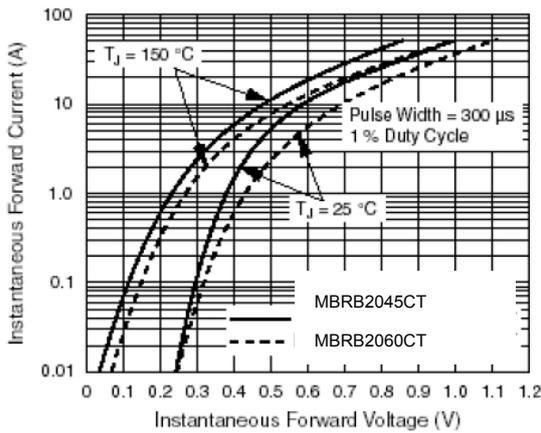


Figure 3. Typical Instantaneous Forward Characteristics Per Diode

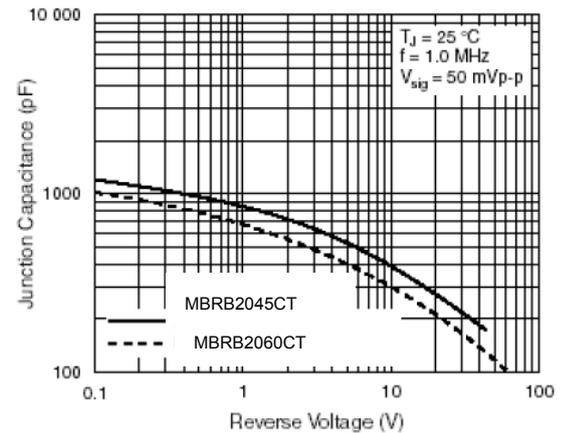


Figure 5. Typical Junction Capacitance Per Diode

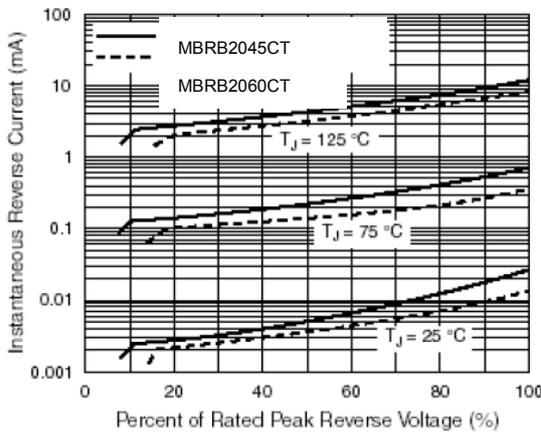


Figure 4. Typical Reverse Characteristics Per Diode

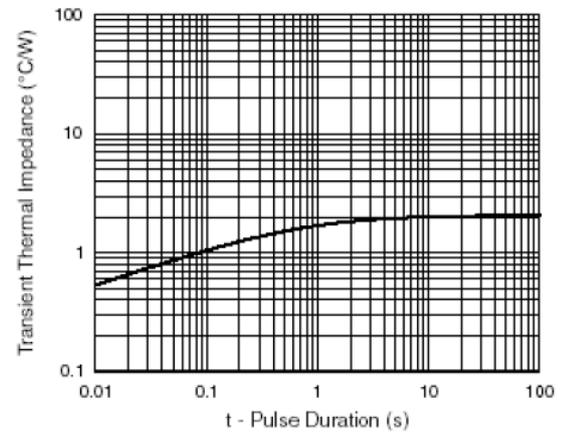


Figure 6. Typical Transient Thermal Impedance Per Diode



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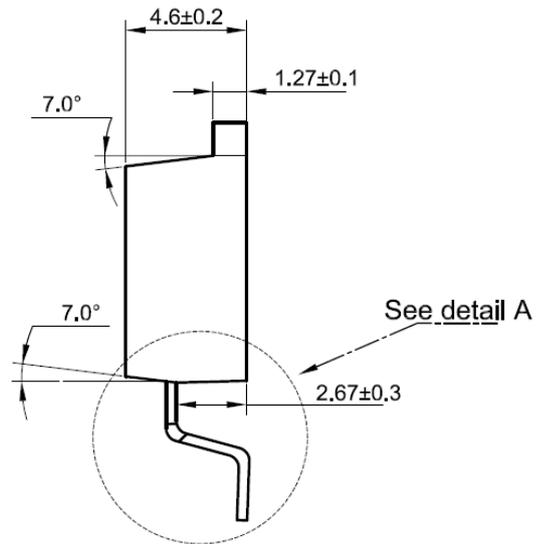
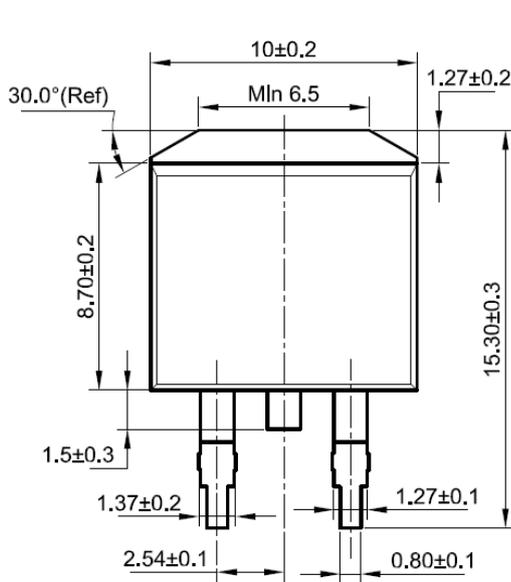
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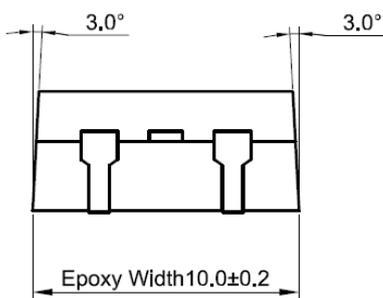
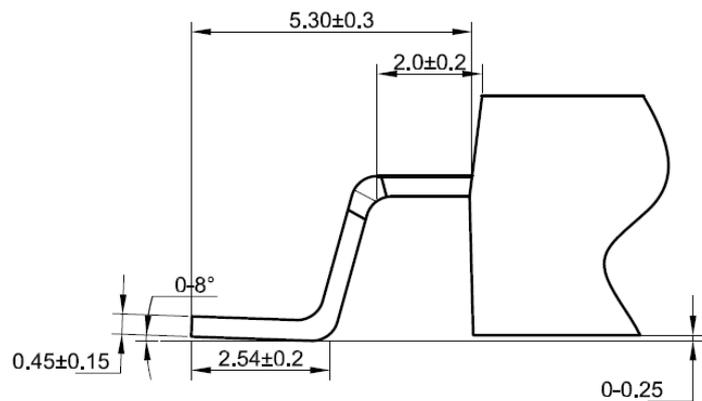
Package Outline Dimensions

Unit: millimeters

TO-263



Detail A





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