



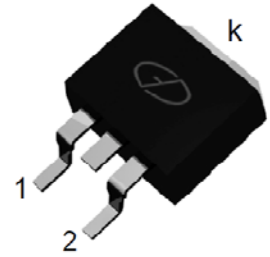
MBRB30100CT

Schottky Barrier Rectifier

Reverse Voltage 100 Volts Forward Current 30 Amperes

Features

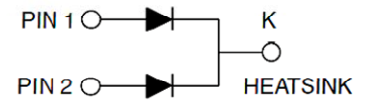
- Plastic package has underwriters Laboratory Flammability Classification 94V-0
- Dual rectifier construction, positive center tap
- Metal of silicon rectifier, majority carrier conduction
- Low forward voltage, high efficiency
- Guarding for over voltage protection



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°C Max. for 10 sec
- Shipped 50 units per plastic tube or tape reel packing 800/reel



Maximum Ratings & Electrical Characteristics

(T_A=25°C unless otherwise noted)

PARAMETER	TEST CONDITIONS		SYMBOL	MBRB30100CT	UNIT
Maximum repetitive peak reverse voltage			V _{RRM}	100	V
Working peak reverse voltage			V _{RWM}	100	V
Maximum DC blocking voltage			V _{DC}	100	V
Maximum average forward rectified current at T _c =105°C total device per diode			I _{F(AV)}	30 15	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}	2.0	A
Voltage rate of change (rated V _R)			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 =15A I _F =15A	T _C =25°C T _C =125°C	V _F	0.85 0.75	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	TYP (TO-263)	Unit
RθJC	Thermal Resistance, Junction to Case per Leg	2.0	°C /W
RθJA	Thermal Resistance, Junction to Ambient per Leg	62.5	°C /W

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



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Ratings and Characteristics Curves

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

FIG. 1- FORWARD CURRENT DERATING CURVE

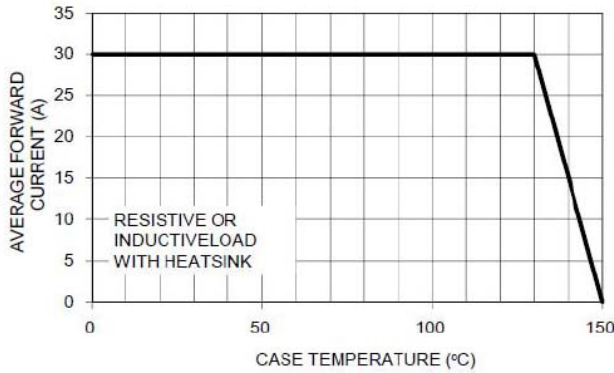


FIG. 2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

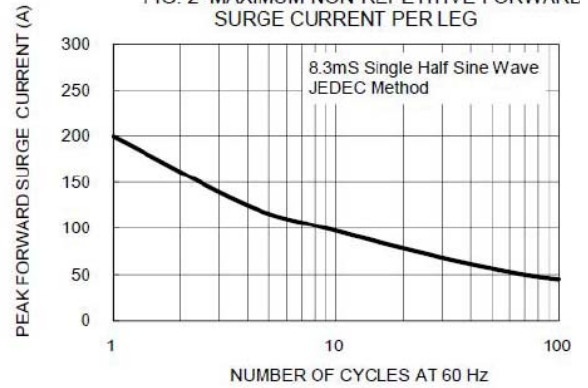


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

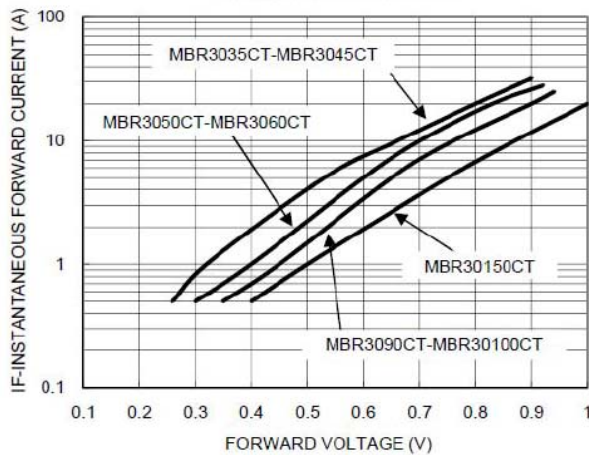


FIG. 4- TYPICAL REVERSE CHARACTERISTICS PER LEG

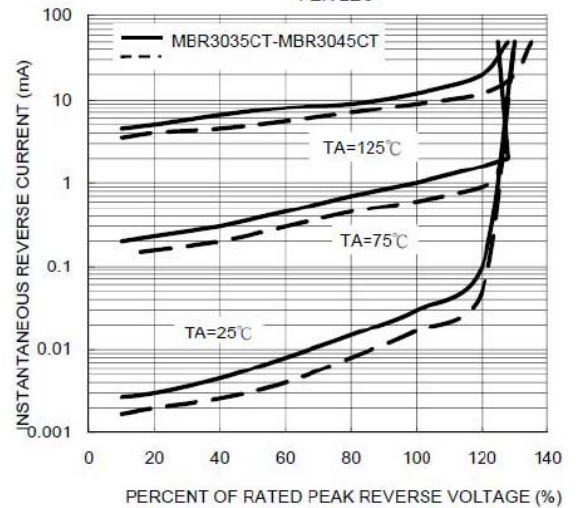


FIG. 5- TYPICAL JUNCTION CAPACITANCE PER LEG

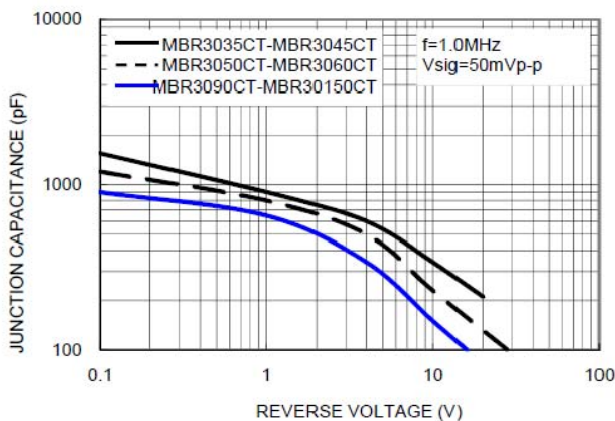
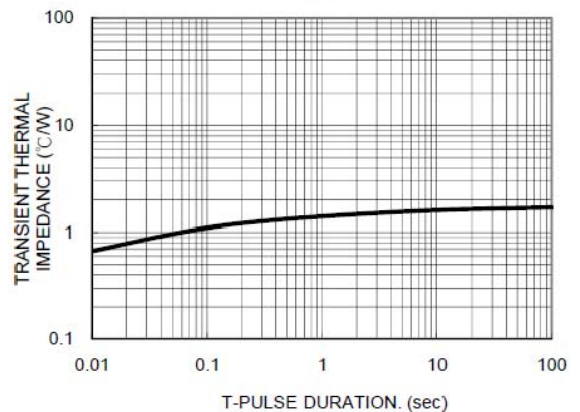


FIG. 6- TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG





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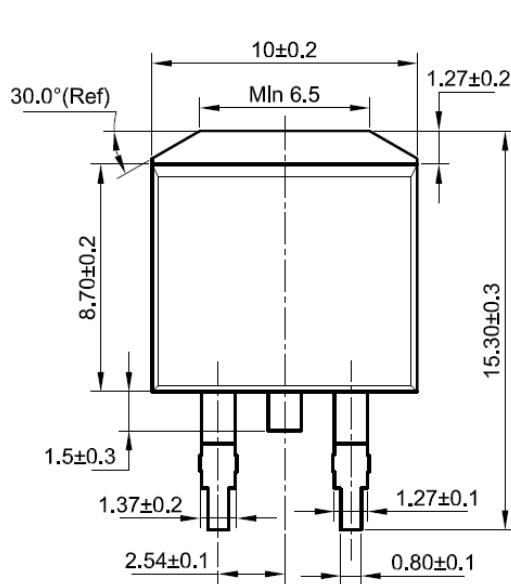
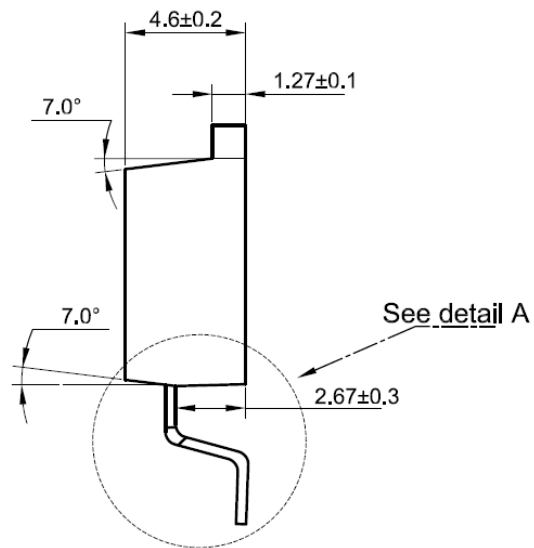
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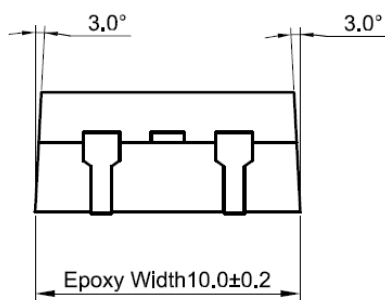
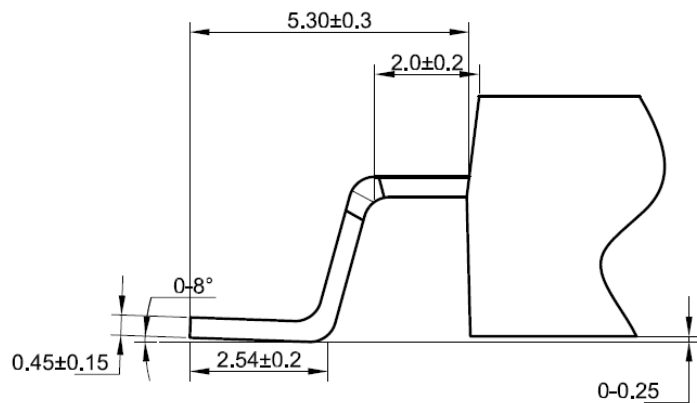
Package Outline Dimensions

Unit: millimeters

TO-263



Detail A





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