



MBR(F)20150CT

Schottky Barrier Rectifier

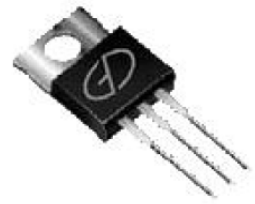
Reverse Voltage 150 Volts Forward Current 20 Amperes

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



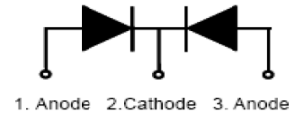
Package: ITO-220-AB



Package: TO-220-AB

Mechanical Data

- Case: Epoxy, Molded
- Weight: 1.9grams (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



Maximum Ratings & Electrical Characteristics

(T_A=25°C unless otherwise noted)

PARAMETER		TEST CONDITIONS		SYMBOL	MBR(F)20150CT	UNIT
Maximum repetitive peak reverse voltage				V _{RRM}	150	V
Working peak reverse voltage				V _{RWM}	150	V
Maximum DC blocking voltage				V _{DC}	150	V
Maximum average forward rectified current at T _c =105°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 =2.0us ,1KHz				I _{RRM}	1.0	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
Isolation voltage (ITO-220-AB only) from terminal to heatsink t = 1 sec				V _{AC}	1500	V
Maximum instantaneous forward voltage per leg		I _F =10A I _F =10A	T _C =25°C T _C =125°C	V _F	0.92 0.82	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-220-AB)		TYP (ITO-220-AB)		Unit
RθJC	Thermal Resistance, Junction to Case per Leg	2.0		4.0		°C /W
RθJA	Thermal Resistance, Junction to Ambient per Leg	62.5		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

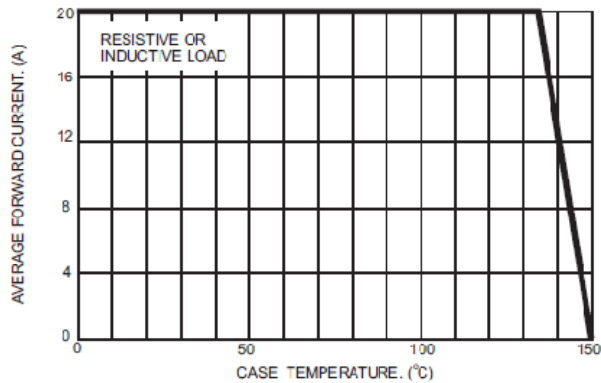


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

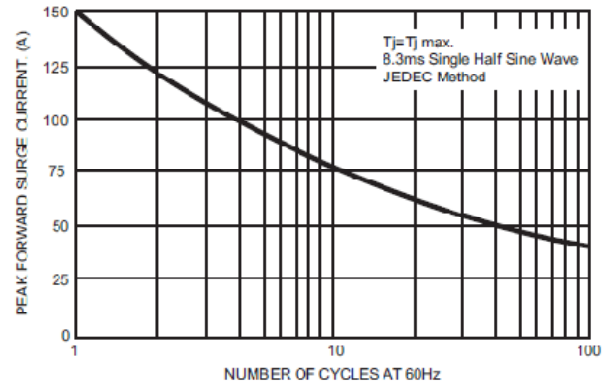


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

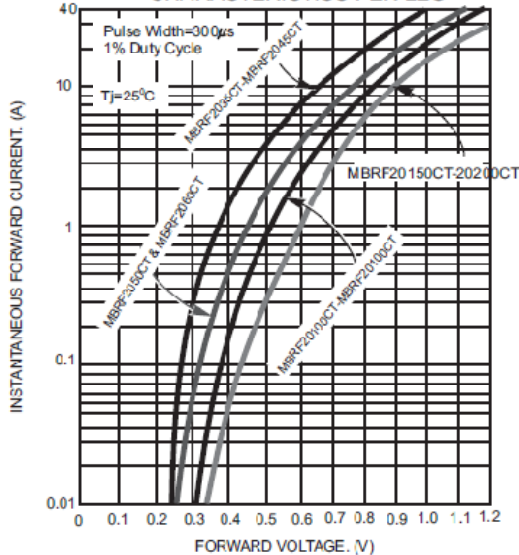


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER LEG

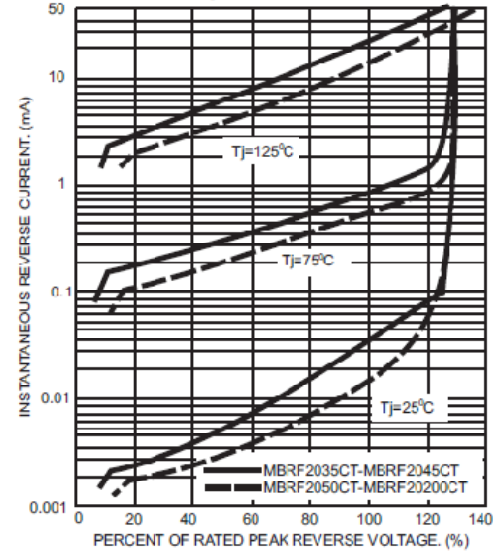


FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG

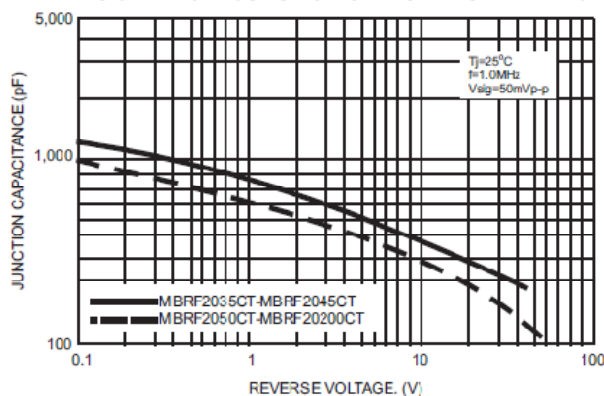
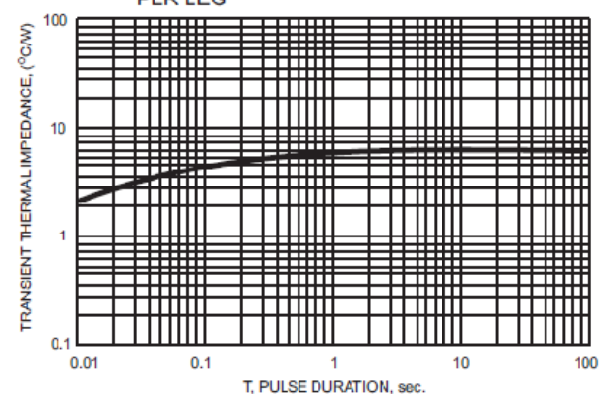


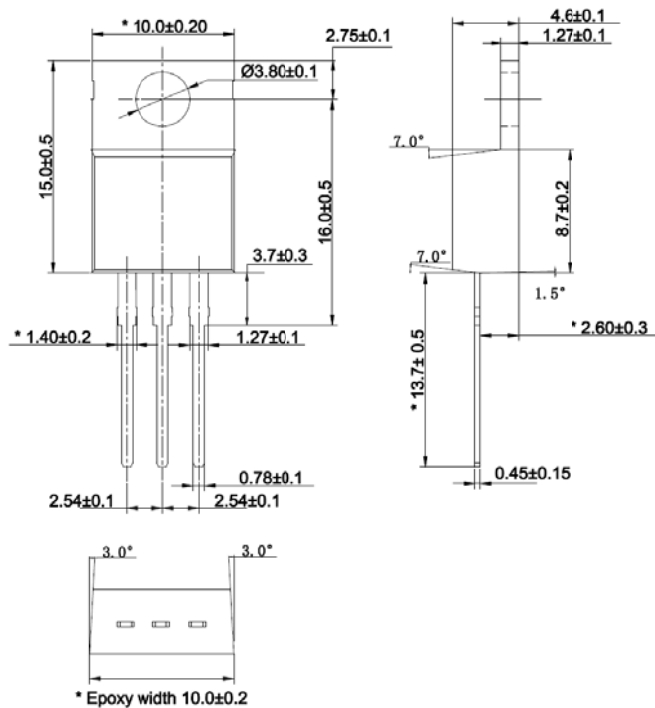
FIG.6- TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG



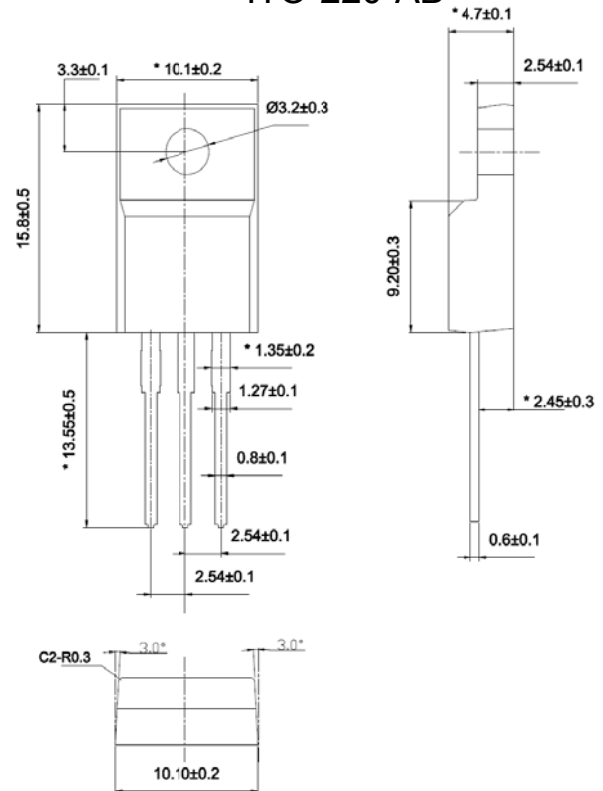
Package Outline Dimensions

Unit: millimeters

TO-220-AB



ITO-220-AB





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