GOOD-ARK
SEMICONDUCTOR

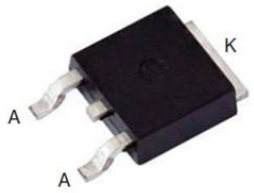
MBRD20150CT

Schottky Barrier Rectifier
Reverse Voltage 150 Volts Forward Current 20 Amperes

Features

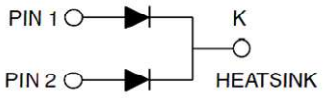
- Plastic package has underwriters Laboratory Flammability Classification 94V-0
- Dual rectifier construction, positive center tap
- Metal of silicon rectifier, majority carrier conduction
- Low forward voltage, high efficiency
- Guarding for over voltage protection

TO-252 (D-PAK)



Package: TO-252

Mechanical Data



- Case: Epoxy, Molded
- Weight: 0.4grams(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 2500 units per reel

Maximum Ratings & Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Test Conditions	Symbol	Value	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 Vverage 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
Voltage Rate of Change(rated V_R)		Dv/dt	10000	V/us
Peak Repetitive Reverse Current per Leg at t_p=2.0us ,1KHz		I_{RRM}	1.0	A
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=10A T_C=25°C I_F=10A 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	50 15	uA uA

Thermal Characteristics

Parameter	Symbol	Value	Unit
Thermal Resistance, Junction to Case per Leg	$R_{\theta JC}$	4.0	°C /W
Thermal Resistance, Junction to Ambient per Leg	$R_{\theta JA}$	62.5	°C /W

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

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Typical Characteristics Curves

FIG.1- FORWARD CURRENT DERATING CURVE

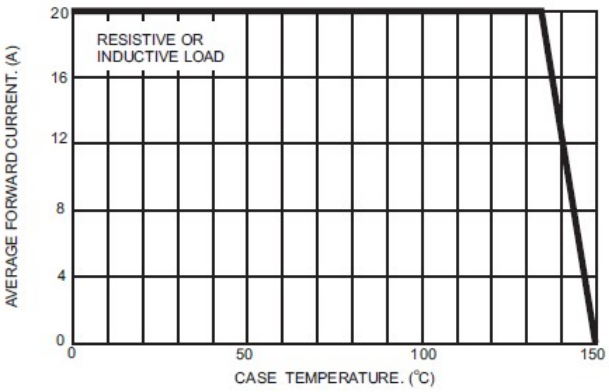


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

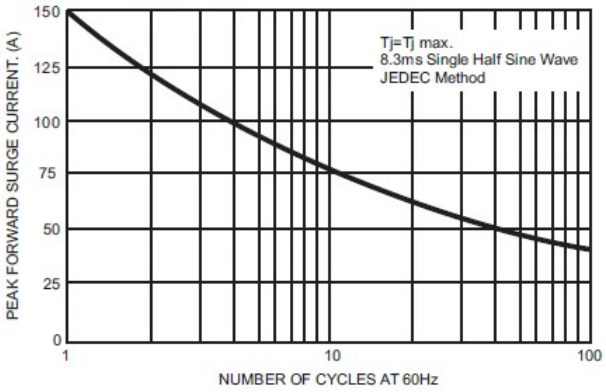


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

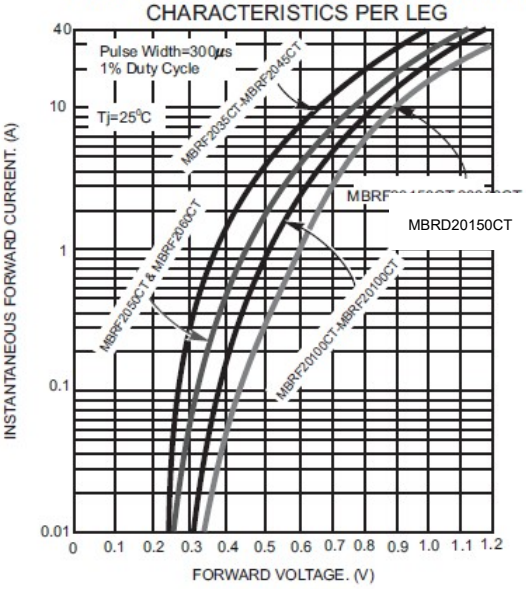


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER LEG

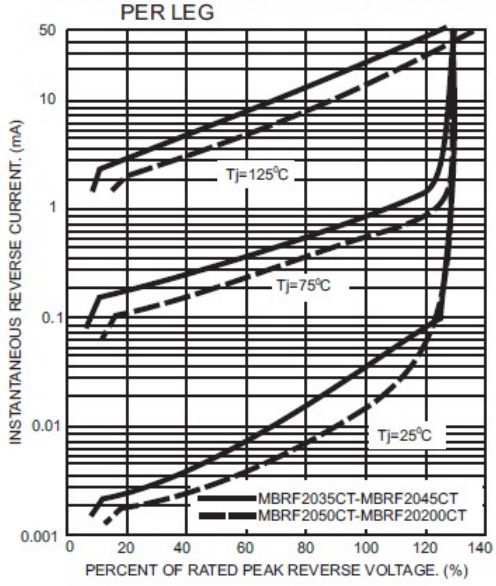


FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG

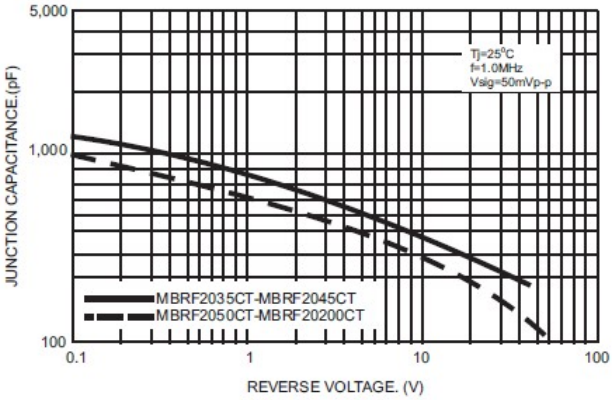
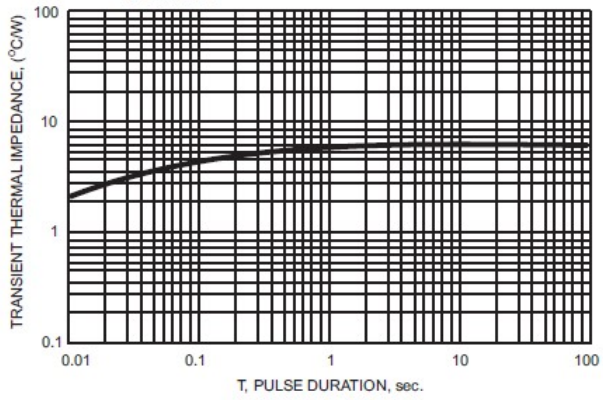


FIG.6- TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG



Package Outline Dimensions TO-252 (D-PAK)