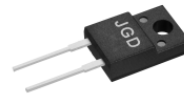


Features

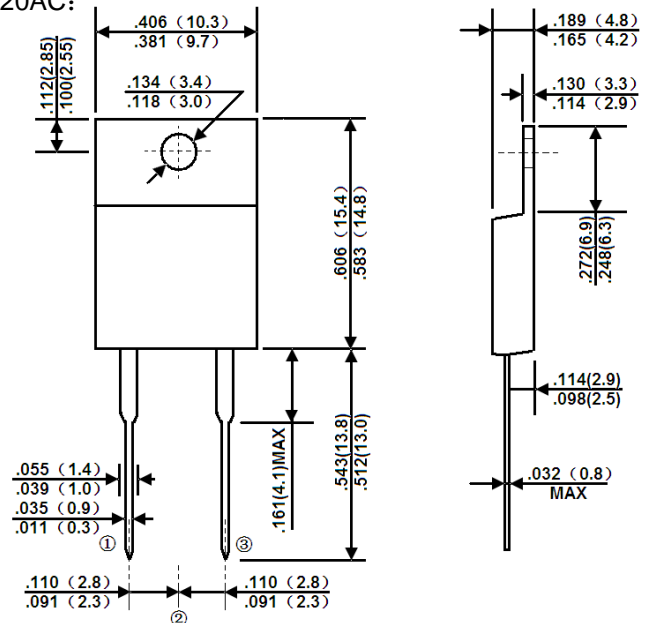
- * Low power loss, high efficiency
- * Guard-ring for overvoltage protection
- * High surge current capability
- * Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC



RoHS
COMPLIANT

Package Outline Dimensions in inches (millimeters)

ITO-220AC:



Mechanical Data

- * Case: ITO-220AC
- * Molding compound, UL flammability classification rating 94V-0
- * Terminal: Matte tin plated leads, solderable per JESD 22-B102 Meet JESD 201 class 1A whisker test
- * Polarity: As marked
- * Mounting torque: 5 in-lbs maximum

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Type Number	Symbol	MBRF 1035	MBRF 1045	MBRF 1050	MBRF 1060	MBRF 1090	MBRF 10100	MBRF 10150	MBRF 10200	Unit	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	35	45	50	60	90	100	150	200	V	
Maximum RMS Voltage	V_{RMS}	24	31	35	42	63	70	105	140	V	
Maximum D.C Blocking Voltage	V_{DC}	35	45	50	60	90	100	150	200	V	
Maximum Average Forward Rectified Current	$I_{F(AV)}$	10								A	
Peak repetitive forward current (Rated VR, square wave, 20KHz)	I_{FRM}	20								A	
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	150								A	
Peak repetitive reverse surge current (Note 1)	I_{RRM}	1		0.5						A	
Maximum instantaneous forward voltage (Note 2) $I_F=10A, T_J=25^\circ C$ $I_F=10A, T_J=125^\circ C$	V_F	0.70 0.57		0.80 0.70		0.85 0.71		1.05 -		V	
Maximum reverse current @ Rated VR $T_J=25^\circ C$ $T_J=125^\circ C$	I_R	15		10		6		2		mA	
Voltage rate of change (Rated VR)	dV/dt	10000								V/μs	
Typical Thermal Resistance	$R_{\theta JC}$	3							4		°C/W
Operating junction temperature range	T_J	-55 to +150								°C	
Storage Temperature Range	T_{STG}	-55 to +175								°C	

Note:1、 $t_p = 2.0 \mu s, 1.0KHz$ 2、Pulse test with $PW=300\mu s, 1\%$ duty cycle

Ratings and Characteristic Curves

FIG. 1 FORWARD CURRENT DERATING CURVE

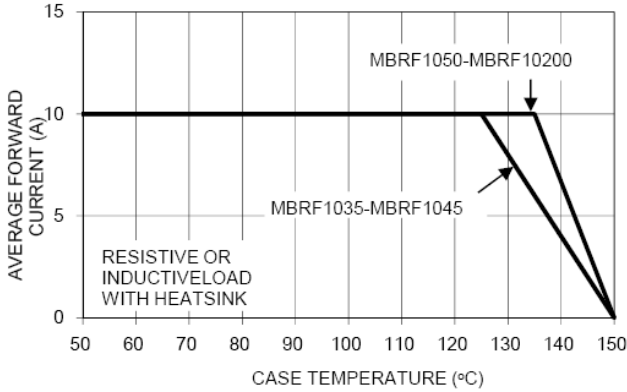


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

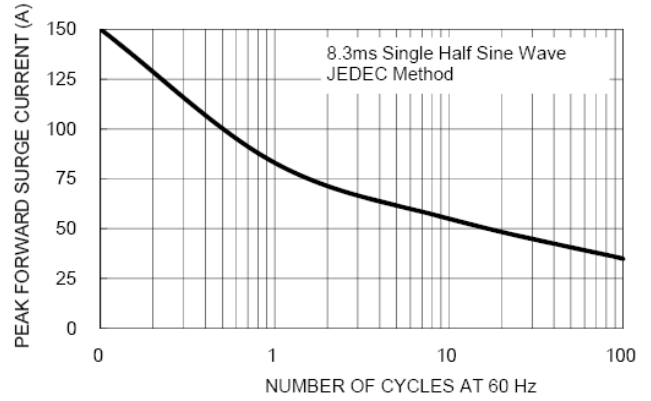


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

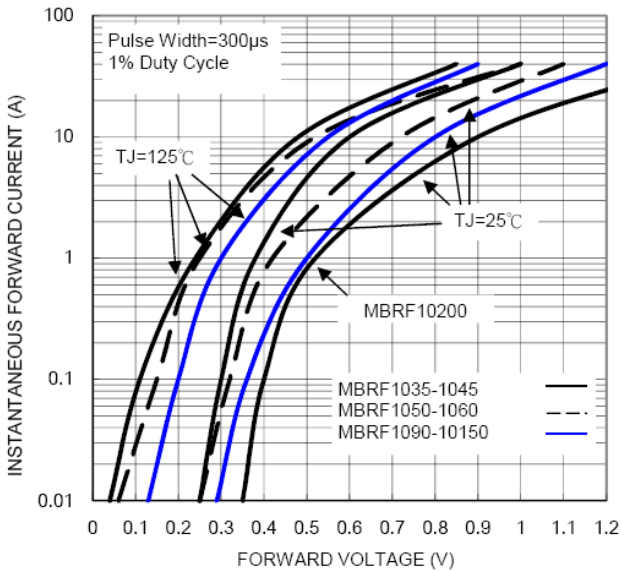


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

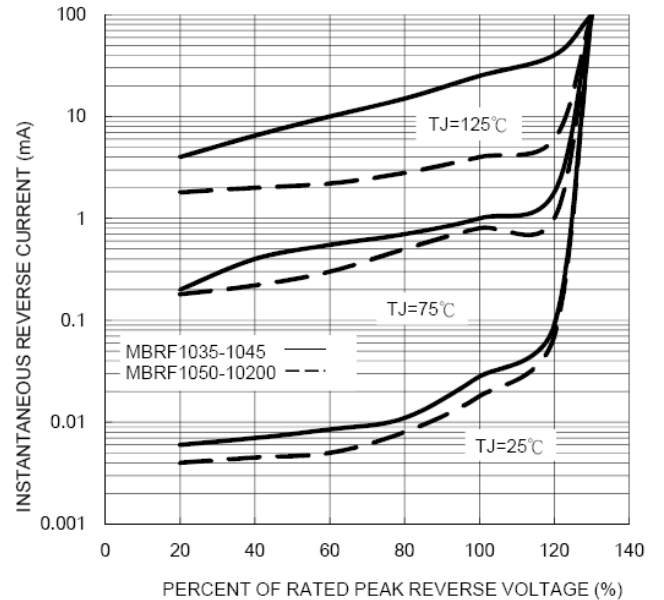


FIG. 5 TYPICAL JUNCTION CAPACITANCE PER LEG

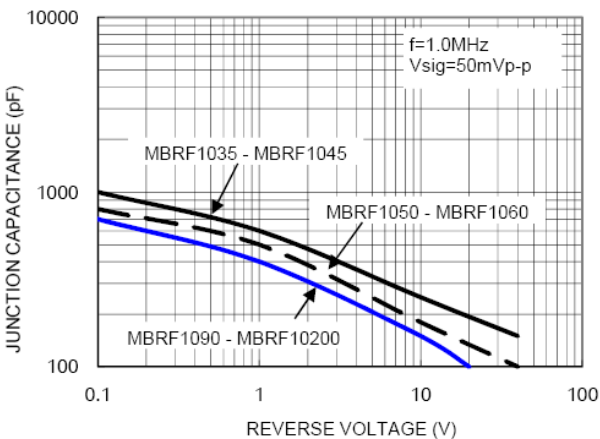
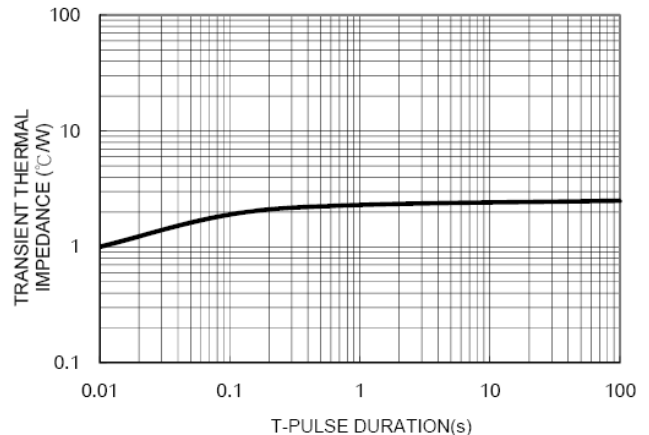


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG





MBRF1035 THRU MBRF10200

Isolated Schottky Barrier Rectifiers

Ordering Information

Part No.	Package	Packing
MBRF1035~MBRF10200	ITO-220AC	50pcs/Tube