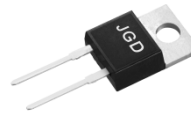


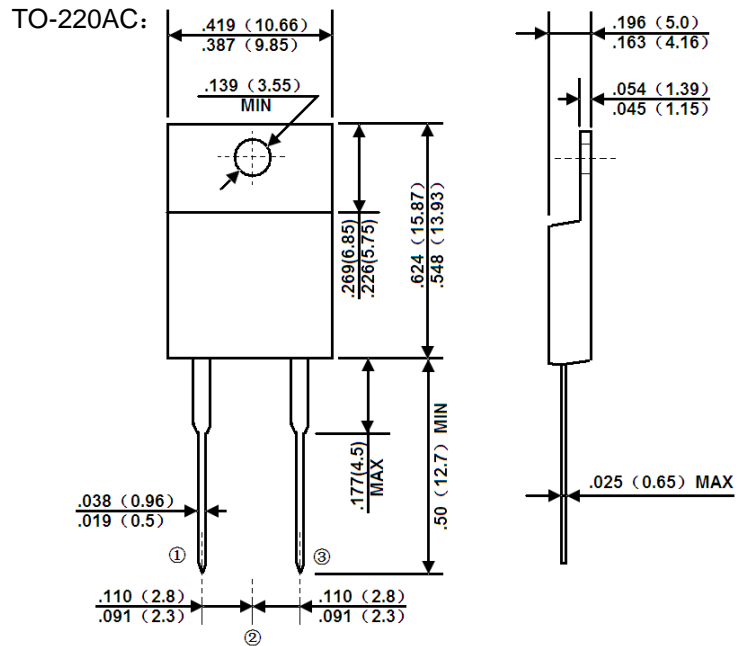
Features

- * Low power loss, high efficiency
- * Guardring 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)



Mechanical Data

- * Case: TO-220AC
- * Molding compound, UL flammability classification rating 94V-0
- * Terminal: Matte tin plated leads, solderable per JESD22-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	MBR 735	MBR 745	MBR 750	MBR 760	MBR 790	MBR 7100	MBR 7150	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	35	45	50	60	90	100	150	V
Maximum RMS Voltage	V_{RMS}	24	31	35	42	63	70	105	V
Maximum D.C Blocking Voltage	V_{DC}	35	45	50	60	90	100	150	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	7.5							A
Peak repetitive forward current (Rated VR, Square Wave, 20KHz)	I_{FRM}	15							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) IF=7.5 A, T _J =25 °C IF=7.5 A, T _J =125 °C IF=15 A, T _J =25 °C IF=15 A, T _J =125 °C	V_F	- 0.57 0.84 0.72	-	0.75 0.65 -	0.92 0.82 -	0.95 0.92 -			V
Maximum reverse current @ rated VR T _J =25 °C T _J =125 °C	I_R	15			10		5		mA
Maximum reverse current @ rated VR T _J =25 °C T _J =125 °C	I_R	15			10		5		mA
Voltage rate of change (Rated VR)	dV/dt	10000							V/μs
Typical Thermal Resistance	R _{θjc} R _{θja}	5 15							°C/W
Operating junction temperature range	T _J	-55 to +150							°C
Storage Temperature Range	T _{STG}	-55 to +175							°C

Note: 1、tp = 2.0 μs, 1.0KHz 2、Pulse test with PW=300μs, 1% duty cycle

Ratings and Characteristic Curves

FIG. 1- FORWARD CURRENT DERATING CURVE

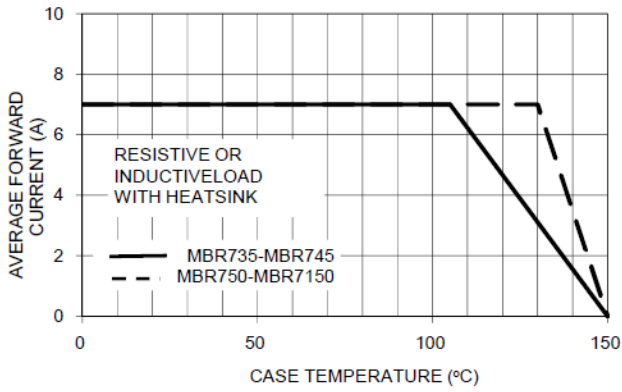


FIG. 2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

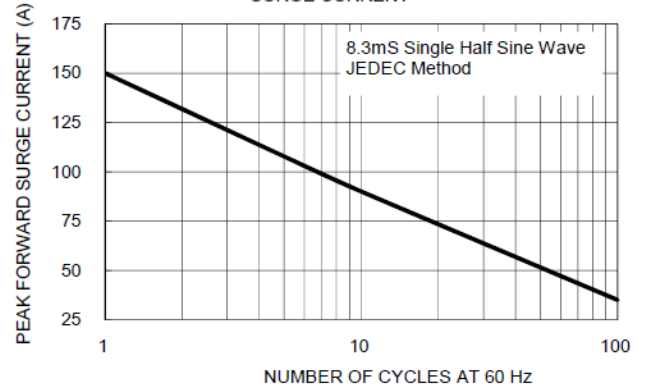


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

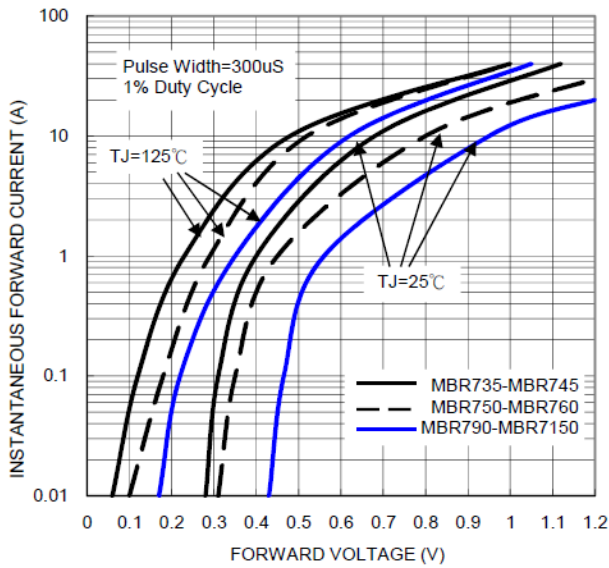


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

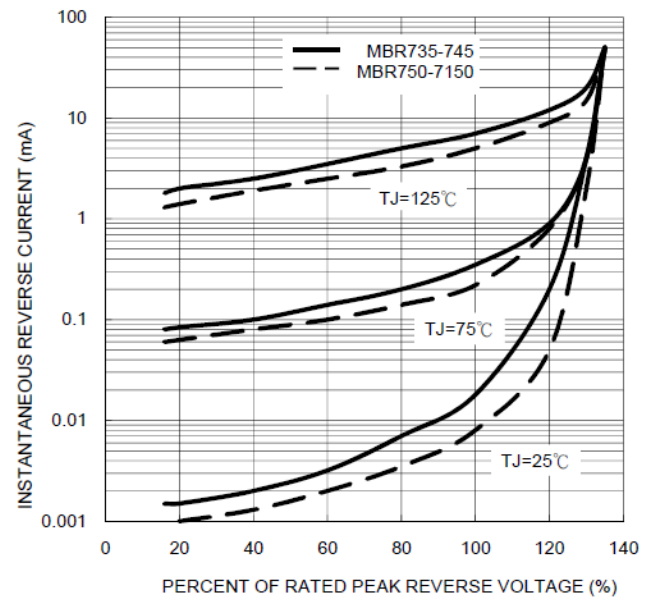


FIG. 5- TYPICAL JUNCTION CAPACITANCE

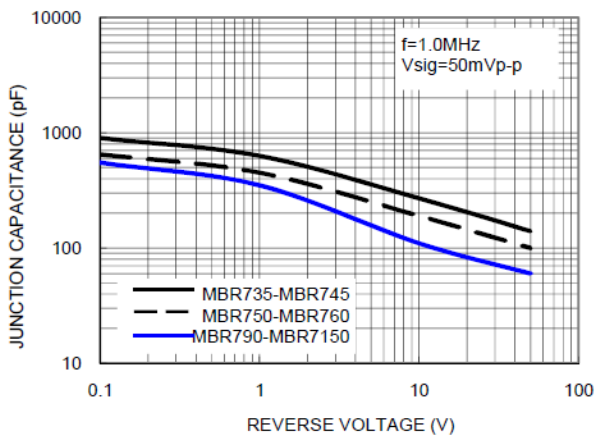
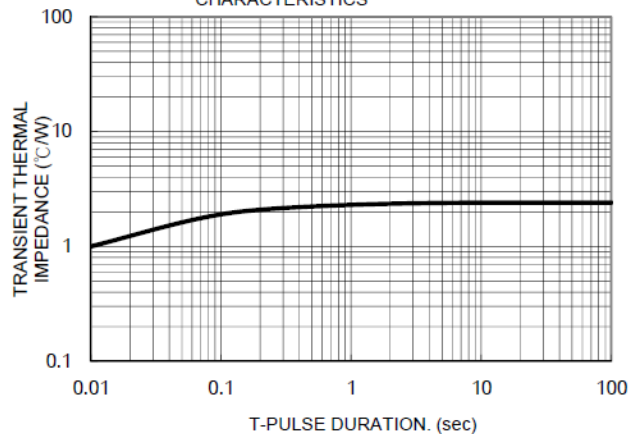


FIG. 6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS





MBR735 THRU MBR7150
Schottky Barrier Rectifiers

Ordering Information

Part No.	Package	Packing
MBR735~MBR7150	TO-220AC	50pcs/Tube