



FEATURES

- * Low forward voltage drop
- * High current capability
- * High reliability
- * High surge current capability
- * Epitaxial construction

MECHANICAL DATA

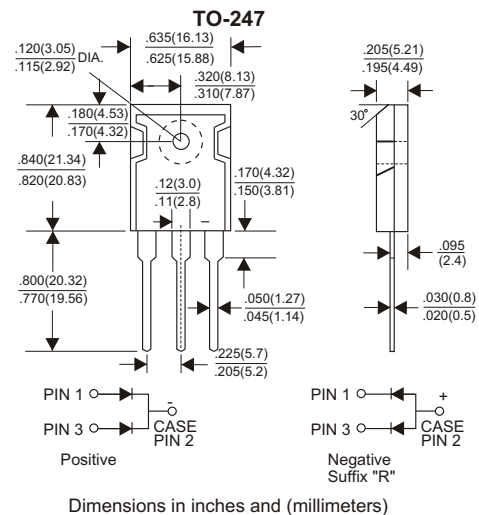
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: Lead solderable per MIL-STD-202, method 208 guaranteed
- * Polarity: As Marked
- * Mounting position: Any
- * Weight: 5.60 grams

VOLTAGE RANGE

20 to 200 Volts

CURRENT

30.0 Amperes



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	MBR3020PT	MBR3040PT	MBR3060PT	MBR3080PT	MBR30100PT	MBR30150PT	MBR30200PT	UNITS
Maximum Recurrent Peak Reverse Voltage	20	40	60	80	100	150	200	V
Maximum RMS Voltage	14	28	42	56	70	105	140	V
Maximum DC Blocking Voltage	20	40	60	80	100	150	200	V
Maximum Average Forward Rectified Current at Tc=125°C	30							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	250							A
Maximum Instantaneous Forward Voltage at 30A	0.55	0.7	0.85		0.92		V	
Maximum DC Reverse Current Ta=25°C	0.1		0.02				mA	
at Rated DC Blocking Voltage Ta=100°C	5		2				mA	
Typical Junction Capacitance (Note1)	600							pF
Typical Thermal Resistance RθJC (Note 2)	1.4							°C/W
Operating Temperature Range Tj	-65 — +150							°C
Storage Temperature Range Tstg	-65 — +150							°C

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Case.

RATING AND CHARACTERISTIC CURVES (MBR3020PT THRU MBR30200PT)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

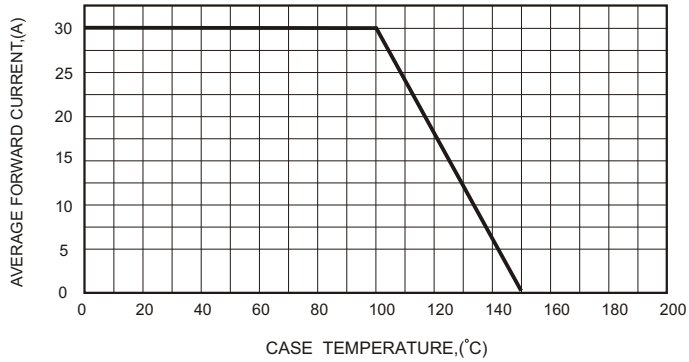


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

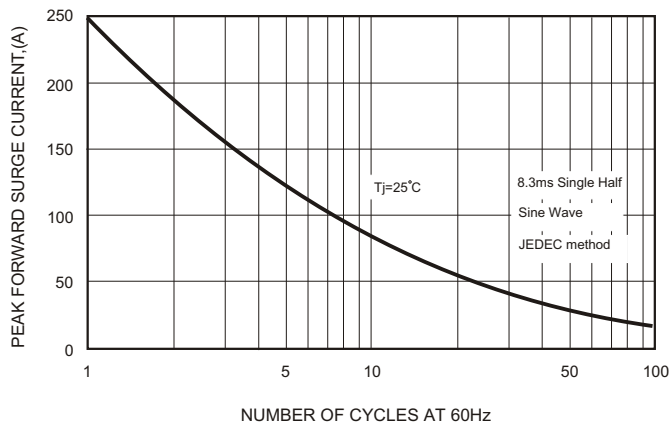


FIG.4-TYPICAL JUNCTION CAPACITANCE

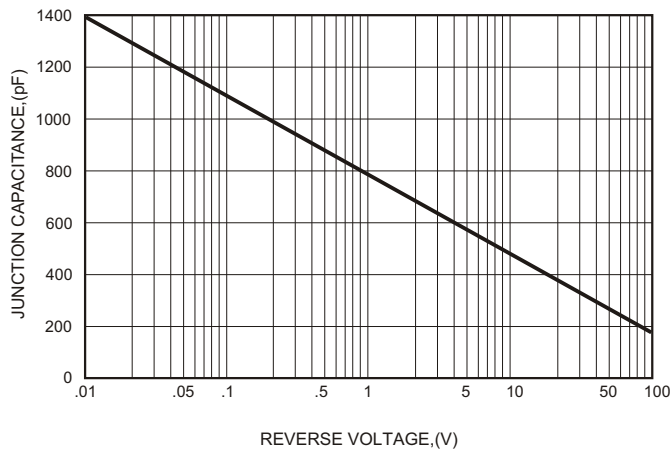


FIG.2-TYPICAL FORWARD CHARACTERISTICS

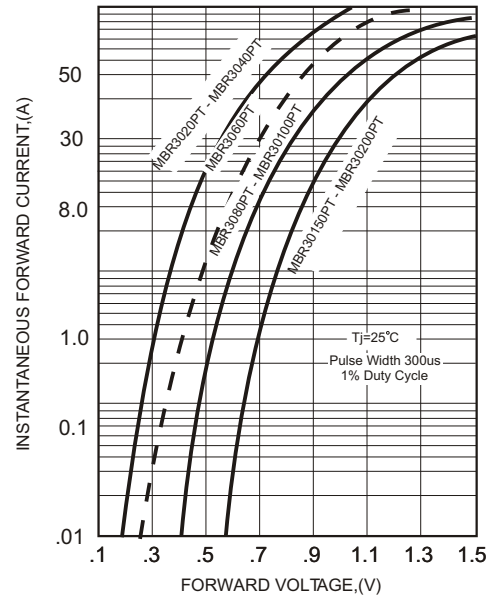


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

