

FEATURES

- * Low forward voltage drop
- * High current capability
- * High reliability
- * High surge current capability
- * Good for switching mode application

MECHANICAL DATA

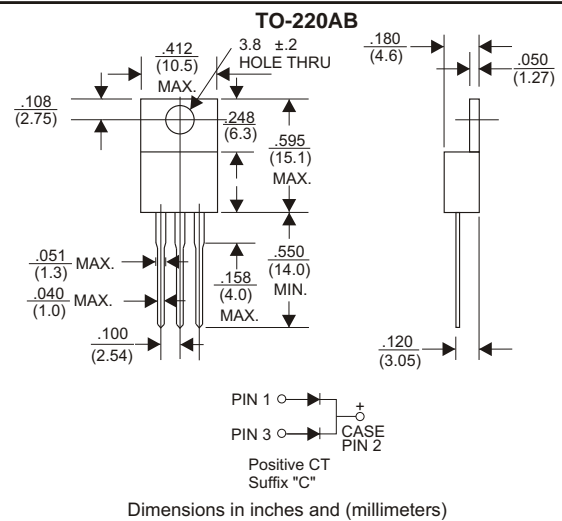
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: Lead solderable per MIL-STD-202, method 208 guaranteed
- * Polarity: As Marked
- * Mounting position: Any

VOLTAGE RANGE

45 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	MBR30L45CT	MBR30L60CT	MBR30L100CT	MBR30L150CT	MBR30L200CT	UNITS
Maximum Recurrent Peak Reverse Voltage	45	60	100	150	200	V
Maximum RMS Voltage	45	60	100	150	200	V
Maximum DC Blocking Voltage	32	42	70	105	140	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	0.48	0.55	0.7	0.85		V
Maximum DC Reverse Current at Rated DC Blocking Voltage	0.2					mA
Typical Junction Capacitance (Note1)	500					pF
Typical Thermal Resistance RθJC (Note 2)	2.5					°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 (MBR30L45CT THRU MBR30L200CT)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

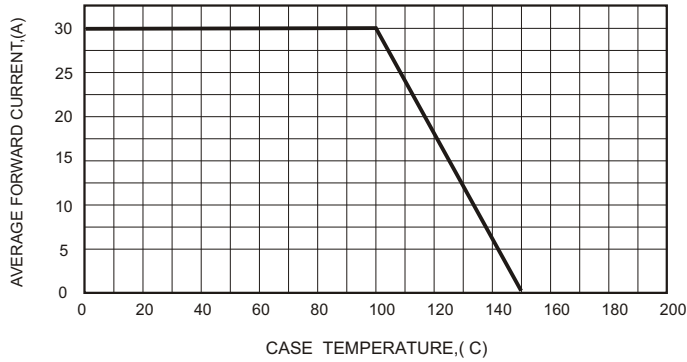


FIG.2-TYPICAL FORWARD CHARACTERISTICS

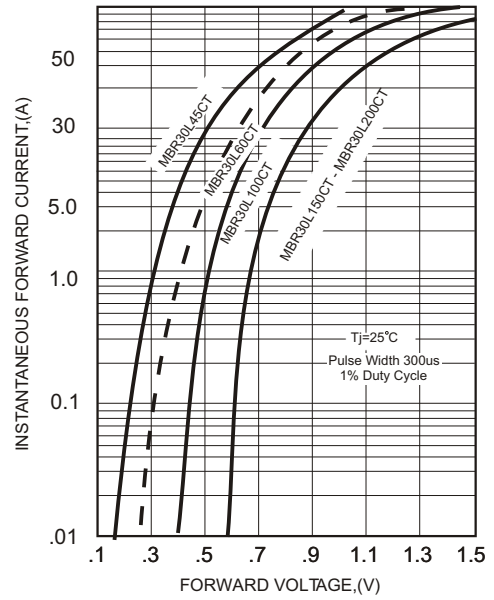


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

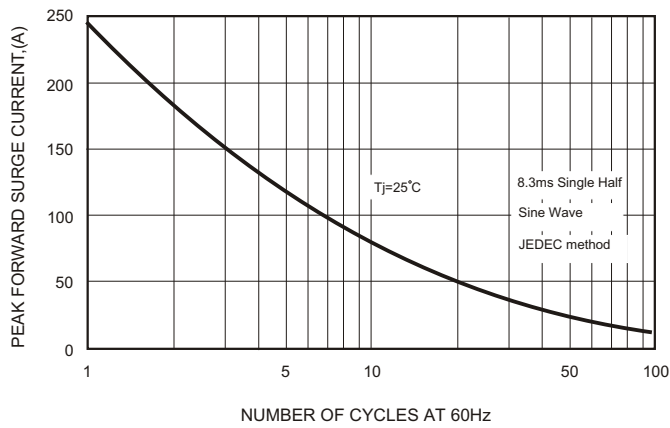


FIG.4-TYPICAL JUNCTION CAPACITANCE

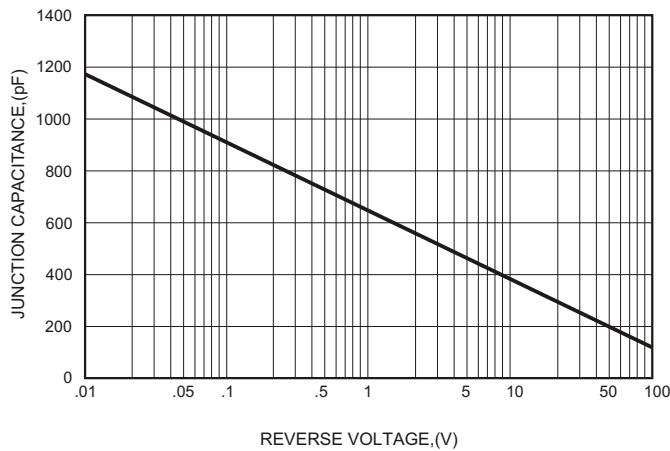


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

