



FEATURES

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

MECHANICAL DATA

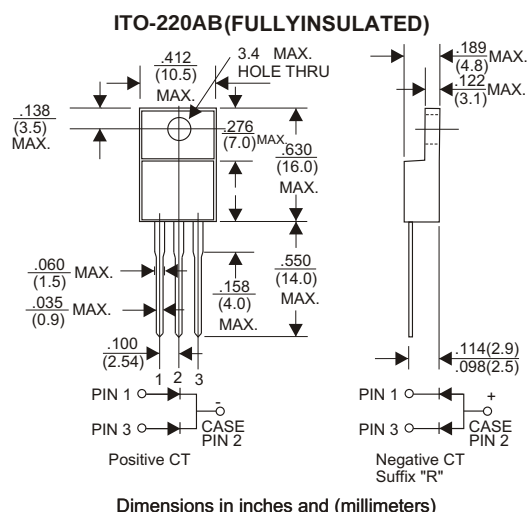
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: Lead solderable per MIL-STD-202, method 208 guaranteed
- * Polarity: As Marked
- * Mounting position: Any

VOLTAGE RANGE

45 to 100 Volts

CURRENT

40.0 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	MBRF40L45CT	MBRF40L60CT	MBRF40L100CT	UNITS
Maximum Recurrent Peak Reverse Voltage	45	60	100	V
Maximum RMS Voltage	45	60	100	V
Maximum DC Blocking Voltage	32	42	70	V
Maximum Average Forward Rectified Current				
at Tc=125°C	40			A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	300			A
Maximum Instantaneous Forward Voltage at 40A	0.47	0.55	0.7	V
Maximum DC Reverse Current Ta=25°C	0.2			mA
at Rated DC Blocking Voltage Ta=100°C	20			mA
Typical Junction Capacitance (Note1)	580			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 (MBRF40L45CT THRU MBRF40L100CT)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

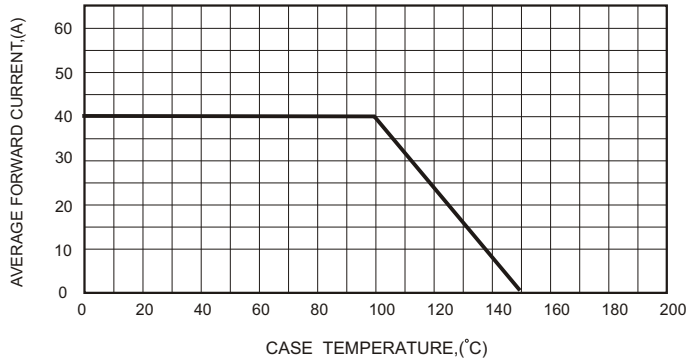


FIG.2-TYPICAL FORWARD CHARACTERISTICS

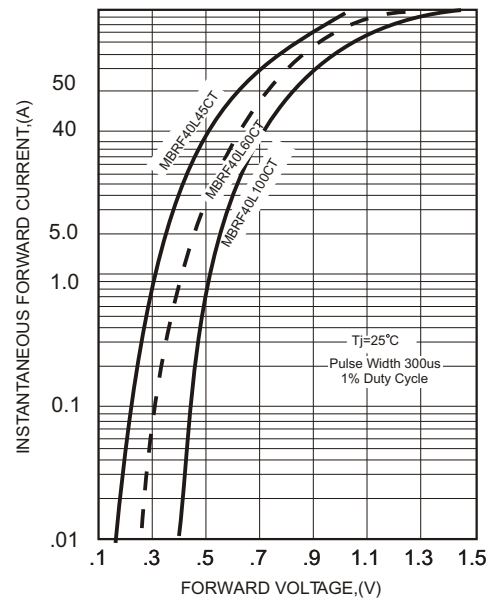


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

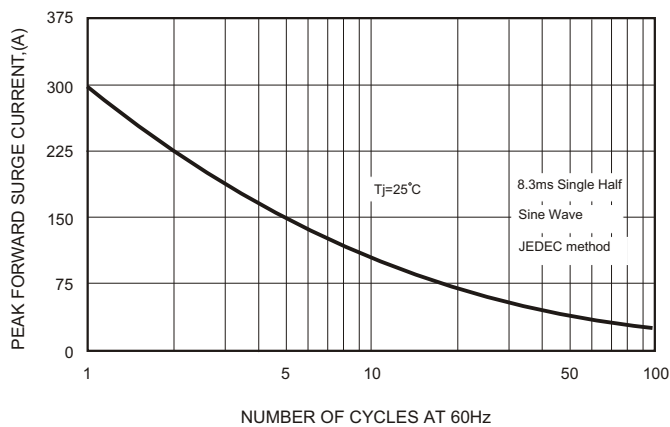


FIG.4-TYPICAL JUNCTION CAPACITANCE

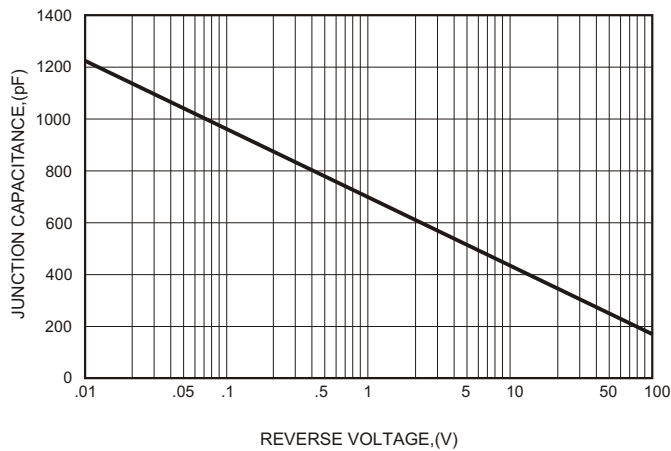


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

