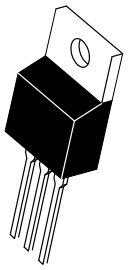
MBR3020CT THRU MBR30200CT

30.0 AMP SCHOTTKY BARRIER RECTIFIERS



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 guranteed
* Polarity: As Marked
* Mounting position: Any

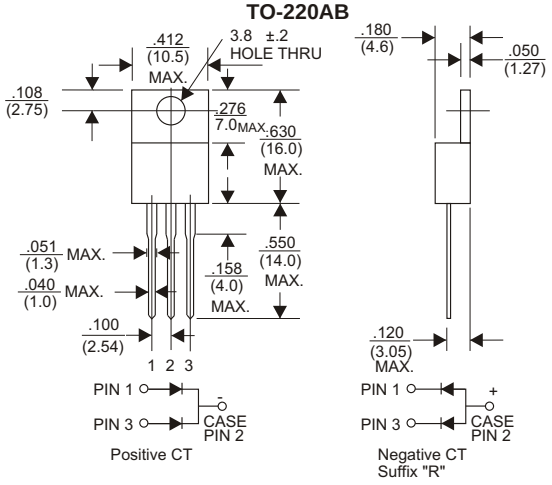
VOLTAGE RANGE

20 to 200 Volts

CURRENT

30.0 Amperes

TO-220AB



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	MBR3020CT	MBR3045CT	MBR3060CT	MBR3080CT	MBR30100CT	MBR30150CT	MBR30200CT	UNITS
Maximum Recurrent Peak Reverse Voltage	20	45	60	80	100	150	200	V
Maximum RMS Voltage	14	32	42	56	70	105	140	V
Maximum DC Blocking Voltage	20	45	60	80	100	150	200	V
Maximum Average Forward Rectified Current at Tc=125℃	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	0.65		0.75	0.85		0.92		V
Maximum DC Reverse Current Ta=25℃	0.1			0.02				mA
at Rated DC Blocking Voltage Ta=100℃	5			2				mA
Typical Junction Capacitance (Note1)	570							pF
Typical Thermal Resistance RθJC (Note 2)	2.5							℃/W
Operating Temperature Range TJ	-65 —+150							℃
Storage Temperature Range TSTG	-65 — +150							℃

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal Resistance Junction to Case.

RATING AND CHARACTERISTIC CURVES (MBR3020CT THRU MBR30200CT)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

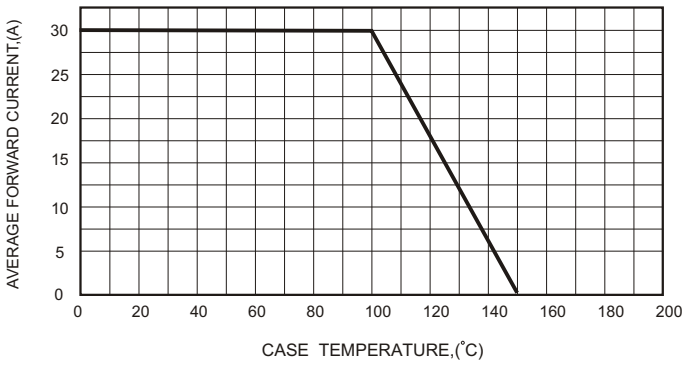


FIG.2-TYPICAL FORWARD CHARACTERISTICS

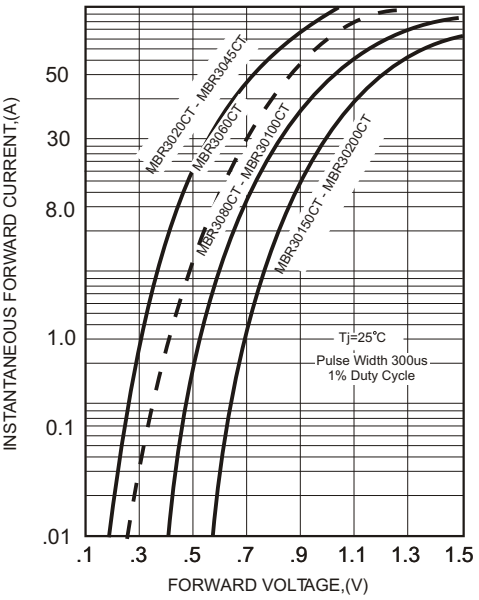


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

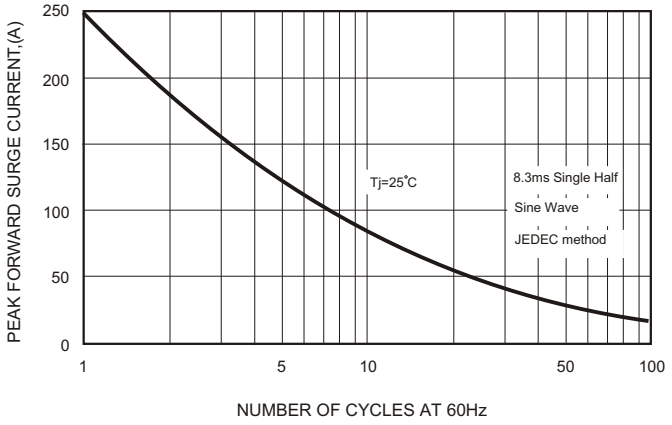


FIG.4-TYPICAL JUNCTION CAPACITANCE

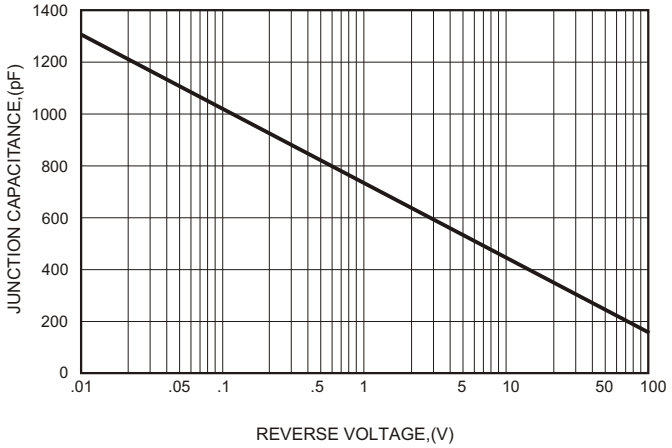
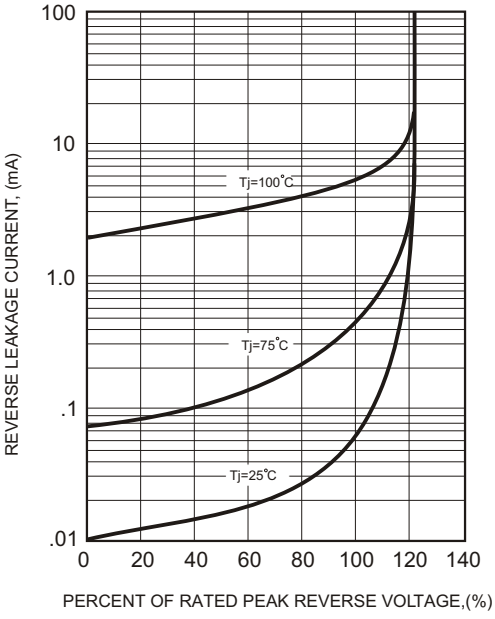



FIG.5 - TYPICAL REVERSE CHARACTERISTICS