

MBR10300CT

SCHOTTKY BARRIER RECTIFIERS



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: 1.81 grams
- * Lead Free Finish/RoHS Compliant

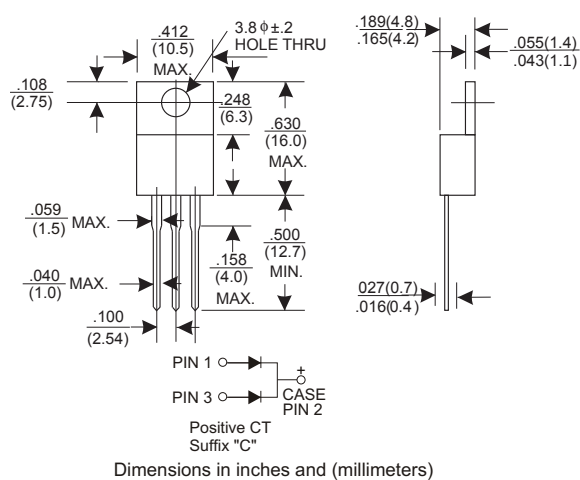
VOLTAGE RANGE

300 Volts

CURRENT

10.0 Ampere

TO-220AB



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load. For capacitive load,derate by 20%.)

	Symbols	MBR10300CT	Units
Maximum repetitive peak reverse voltage	V _{RRM}	300	Volts
Maximum RMS voltage	V _{RMS}	210	Volts
Maximum DC blocking voltage	V _{DC}	300	Volts
Maximum average forward rectified current(see Fig.1)	I _(AV)	5.0 10.0	Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	150.0	Amps
Forward voltage at 5.0 A per leg(Notes 1)	V _F	0.90	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Notes 1)	I _R	500 30	μA mA
Typical thermal resistance (Notes 2)	R _{θJC}	2.5	°C/W
Operating junction temperature range	T _J	-65 to+175	°C
Storage temperature range	T _{STG}	-65 to+175	°C
Voltage Rate of Change (Rated V _R)	dv/dt	10,000	V/μs

Notes: 1.Pulse test: 300 μ s pulse width,1% duty cycle
2.Thermal resistance from junction to case

FIG.1-FORWARD CURRENT DERATING CURVE

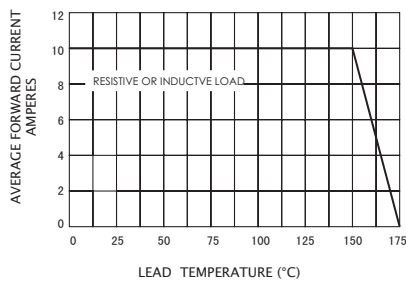


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

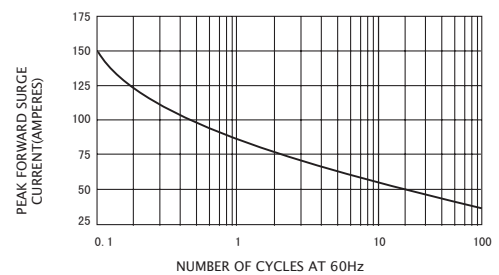


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

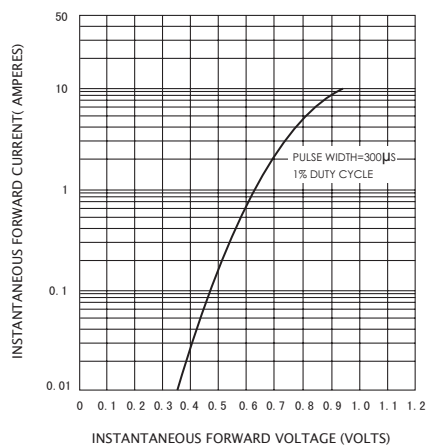


FIG.4-TYPICAL REVERSE CHARACTERISTICS

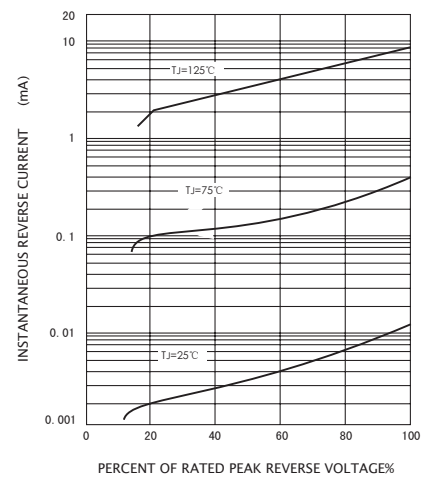


FIG.5-TYPICAL JUNCTION CAPACITANCE

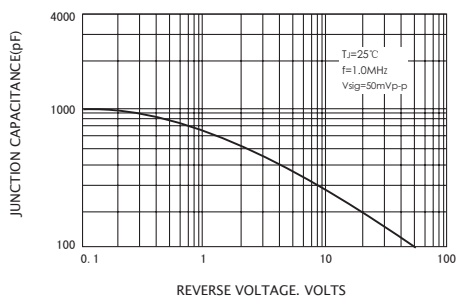


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

