



VOLTAGE RANGE

35 to 200 Volts

CURRENT

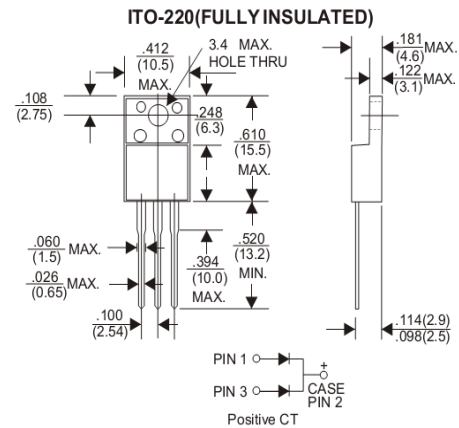
10.0 Ampere

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
- * Weight: 1.69 grams



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A = 25°C unless otherwise noted)											
PARAMETER	SYMBOL	MBRF 1035 CT	MBRF 1045 CT	MBRF 1050 CT	MBRF 1060 CT	MBRF 1090 CT	MBRF 10100 CT	MBRF 10150 CT	MBRF 10200 CT	UNIT	
Maximum repetitive peak reverse voltage	V _{RRM}	35	45	50	60	90	100	150	200	V	
Maximum RMS voltage	V _{RMS}	24	31	35	42	63	70	105	140	V	
Maximum DC blocking voltage	V _{DC}	35	45	50	60	90	100	150	200	V	
Maximum average forward rectified current	I _{F(AV)}	10									A
Peak repetitive forward current (Rated VR, Square wave, 20KHz)	I _{FRM}	10									A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	120									A
Peak repetitive reverse surge current (Note 1)	I _{RRM}	0.5									A
Maximum instantaneous forward voltage (Note 2) I _F = 5 A, T _J = 25°C I _F = 5 A, T _J = 125°C I _F = 10 A, T _J = 25°C I _F = 10 A, T _J = 125°C	V _F	0.70 0.57 0.80 0.67	0.70 0.65 0.90 0.75	0.80 0.65 0.90 0.75	0.80 0.65 0.90 0.75	0.85 0.75 0.95 0.85	0.85 0.75 0.95 0.85	0.88 0.78 0.98 0.88	0.88 0.78 0.98 0.88	V	
Maximum reverse current @ rated VR T _J = 25°C T _J = 125°C	I _R	0.1									mA
		15	10	10	10	5	5	5	5		
Voltage rate of change (Rated V _R)	dV/dt	10000									V/μs
Typical thermal resistance	R _{θJC}	3.5									°C/W
Operating junction temperature range	T _J	- 55 to +150									°C
Storage temperature range	T _{STG}	- 55 to +150									°C

Note 1: t_p = 2.0 μs, 1.0KHz

Note 2: Pulse test with PW=300μs, 1% duty cycle



RATINGS AND CHARACTERISTIC CURVES (MBRF1035CT THRU MBRF10200CT)

RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

FIG. 1 FORWARD CURRENT DERATING CURVE

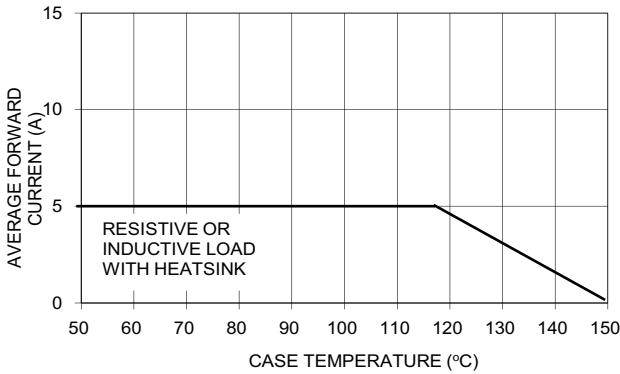


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

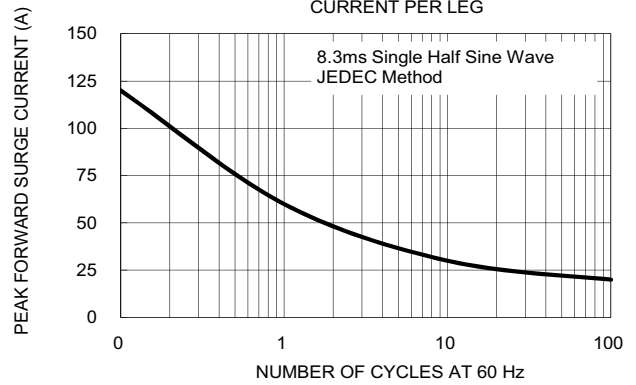


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

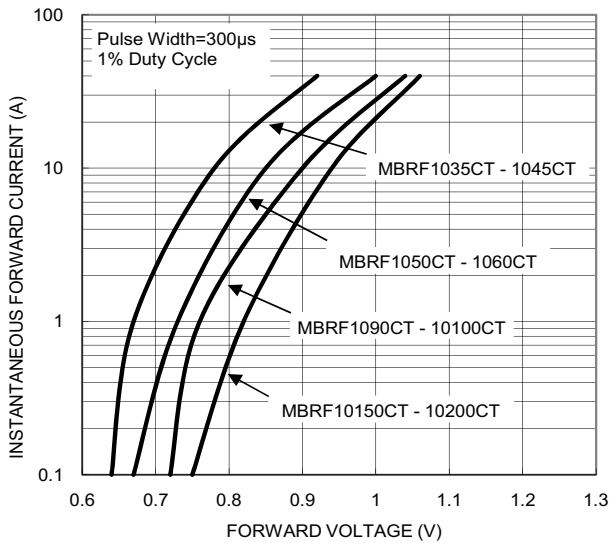


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

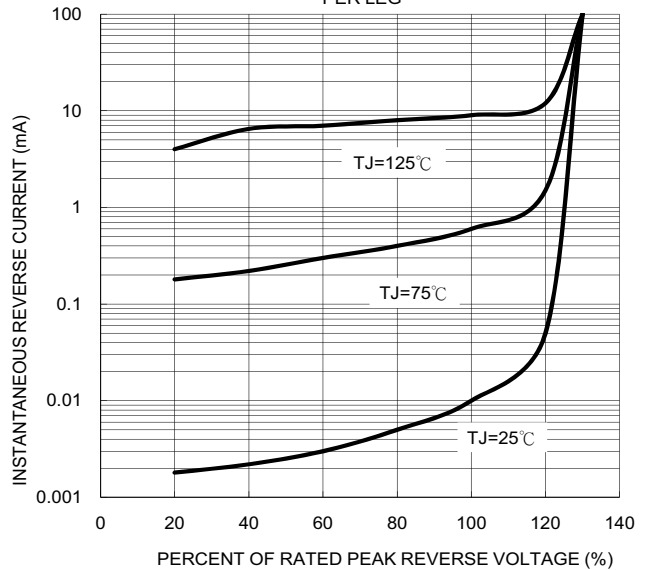


FIG. 5 TYPICAL JUNCTION CAPACITANCE PER LEG

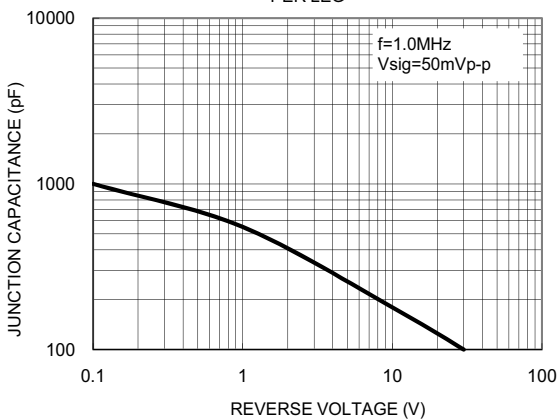


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG

