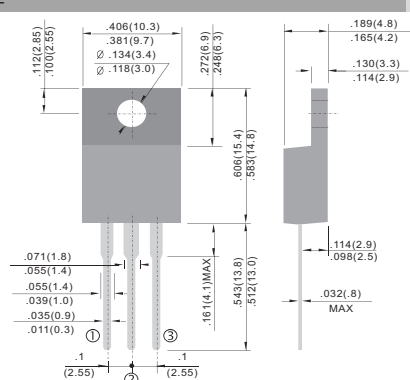
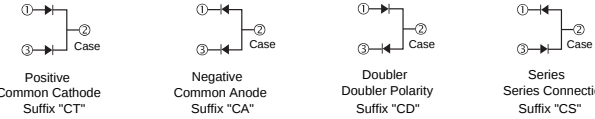


Pb Free Plating Product

MBRF1035CT thru MBRF10200CT



10 Ampere Insulated Dual Common Cathode Schottky Type Half Rectifiers

Features	ITO-220AB/TO-220F	Unit:inch(mm)								
※ Low power loss, high efficiency ※ Guardring for overvoltage protection ※ High surge current capability ※ Compliant to RoHS Directive 2011/65/EU and WEEE 2002/96/EC ※ Halogen-free according to IEC 61249-2-21 definition(Order Note)										
Application ※ Automotive Inverters and Solar Inverters ※ Car Audio Amplifiers and Sound Device Systems ※ Plating Power Supply, Motor Control, UPS and SMPS etc.										
Mechanical Data ※ Case: Insulated Full Pak Plastic Molding TO-220F ※ Epoxy: UL 94V-0 rate flame retardant ※ Terminals: Solderable per MIL-STD-202 method 208 ※ Polarity: As marked on diode body ※ Mounting position: Any ※ Weight: 2.0 gram approximately										
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (TA=25℃ unless otherwise noted)										
PARAMETER	SYMBOL	MBRF1035CT	MBRF1045CT	MBRF1050CT	MBRF1060CT	MBRF1090CT	MBRF10100CT	MBRF10150CT	MBRF10200CT	UNIT
		MBRF1035CA	MBRF1045CA	MBRF1050CA	MBRF1060CA	MBRF1090CA	MBRF10100CA	MBRF10150CA	MBRF10200CA	
		MBRF1035CD	MBRF1045CD	MBRF1050CD	MBRF1060CD	MBRF1090CD	MBRF10100CD	MBRF10150CD	MBRF10200CD	
		MBRF1035CS	MBRF1045CS	MBRF1050CS	MBRF1060CS	MBRF1090CS	MBRF10100CS	MBRF10150CS	MBRF10200CS	
Maximum repetitive peak reverse voltage	VRRM	35	45	50	60	90	100	150	200	V
Maximum RMS voltage	VRMS	24	31	35	42	63	70	105	140	V
Maximum DC blocking voltage	VDC	35	45	50	60	90	100	150	200	V
Maximum average forward rectified current (Total Device 2x5A=10A)	IF(AV)	10								A
Peak repetitive forward current (Rated VR, Square Wave, 20KHz)	IFRM	10								A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	IFSM	120								A
Peak repetitive reverse surge current (Note 1)	IRRM	0.5								A
Maximum instantaneous forward voltage (Note 2) IF=5A, TJ=25℃ IF=5A, TJ=125℃	VF (Per Leg)	0.55 0.50		0.65 0.60		0.75 0.70		0.88 0.86		V
Maximum reverse current @ rated VR TJ=25℃ TJ=125℃	IR	0.05 0.015		0.05 0.010		0.05 0.005		0.05 0.002		mA
Voltage rate of change (Rated VR)	dV/dt	10000								V/μs
Typical thermal resistance	RθJC	3								℃/W
Operating junction temperature range	TJ	- 55 to +150								℃
Storage temperature range	TSTG	- 55 to +150								℃

Note 1: tp = 2.0 μs, 1.0KHz

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

RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

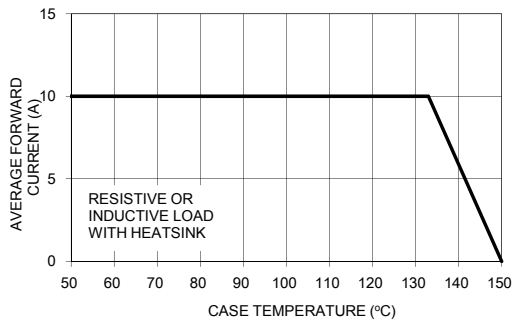


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

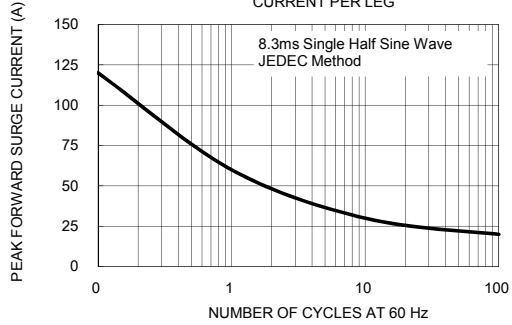


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

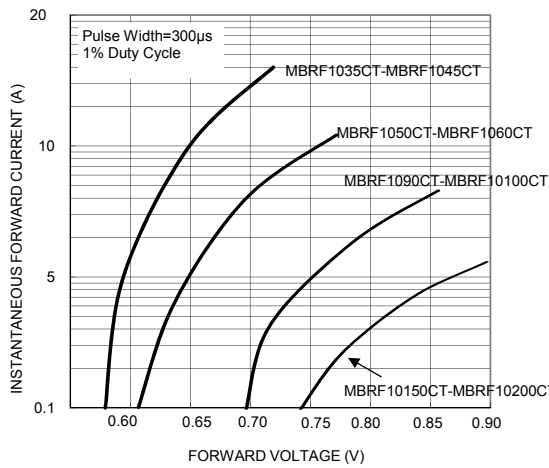


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

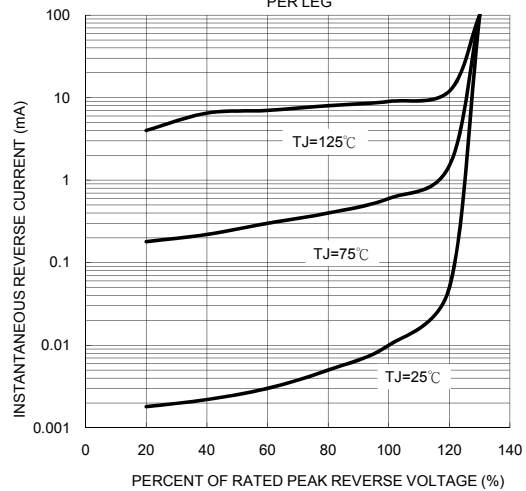


FIG. 5 TYPICAL JUNCTION CAPACITANCE PER LEG

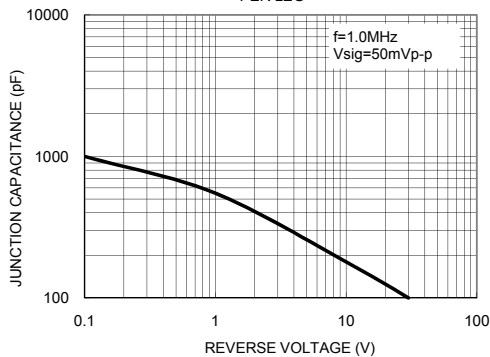


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG

