MBRF2020CT THRU MBRF20100CT

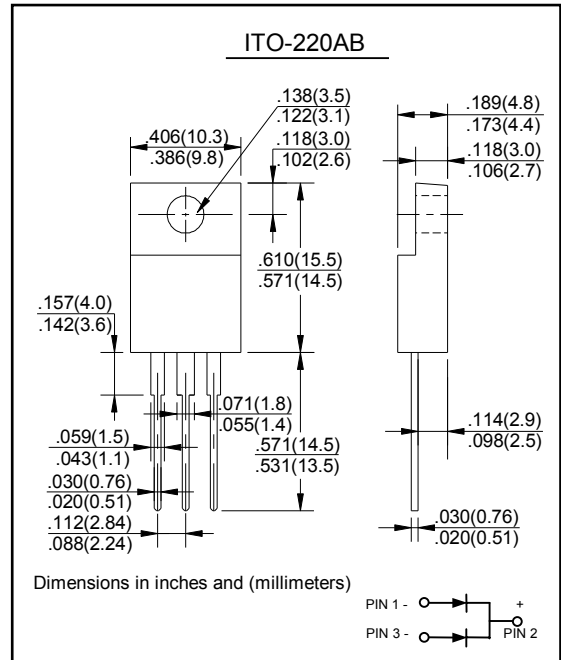## SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts   Forward Current - 20.0 Ampere

FEATURES

● Plastic package has Underwriters Laboratory Flammability Classification 94V-0
● Dual rectifier construction, positive center tap
● Metal silicon junction, majority carrier conduction
● Low power loss, high efficiency
● Guardring for overvoltage protection
● For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

● Case: JEDEC ITO-220AB molded plastic body
● Terminals: Plated leads, solderable per MIL-STD-750, Method 2026
● High temperature soldering guaranteed: 250°C/10 seconds, 0.25" (6.35mm) from case
● Polarity: As marked
● Mounting Position: Any
● Mounting Torque: 10 in-lbs maximum
● Weight: 0.08 ounce, 2.24 grams

RoHS Compliant

ITO-220AB

.138(3.5)
.122(3.1)
.118(3.0)
.102(2.6)
.406(10.3)
.386(9.8)
.189(4.8)
.173(4.4)
.118(3.0)
.106(2.7)
.610(15.5)
.571(14.5)
.157(4.0)
.142(3.6)
.071(1.8)
.055(1.4)
.059(1.5)
.043(1.1)
.030(0.76)
.020(0.51)
.571(14.5)
.531(13.5)
.114(2.9)
.098(2.5)
.112(2.84)
.088(2.24)
.030(0.76)
.020(0.51)

Dimensions in inches and (millimeters)

PIN 1 -   +
PIN 3 -   PIN 2

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

Characteristic	Symbol	MBRF 2020CT	MBRF 2030CT	MBRF 2040CT	MBRF 2045CT	MBRF 2050CT	MBRF 2060CT	MBRF 2080CT	MBRF 20100CT	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	20	30	40	45	50	60	80	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	32	35	42	56	70	V
Average Rectified Output Current @T_C = 95°C	I_O	20								A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	200								A
Forward Voltage @I_F = 10A	V_{FM}	0.55				0.75		0.85		V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 100°C	I_{RM}	0.5 100								mA
Typical Junction Capacitance (Note 1)	C_j	1100								pF
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150								°C

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

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RATINGS AND CHARACTERISTIC CURVES
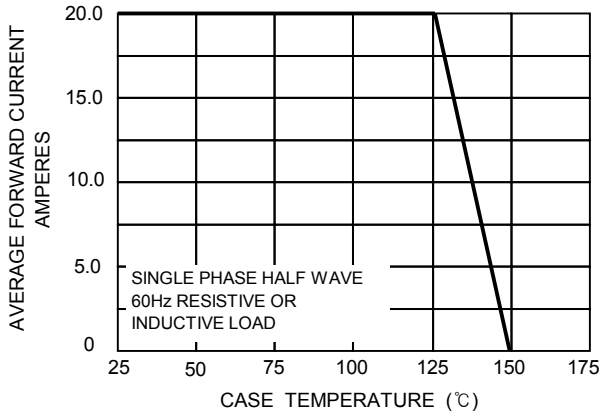
FIG. 1 – FORWARD CURRENT DERATING CURVE

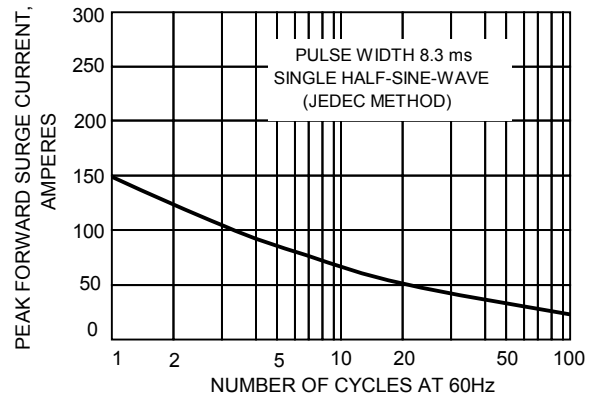FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT
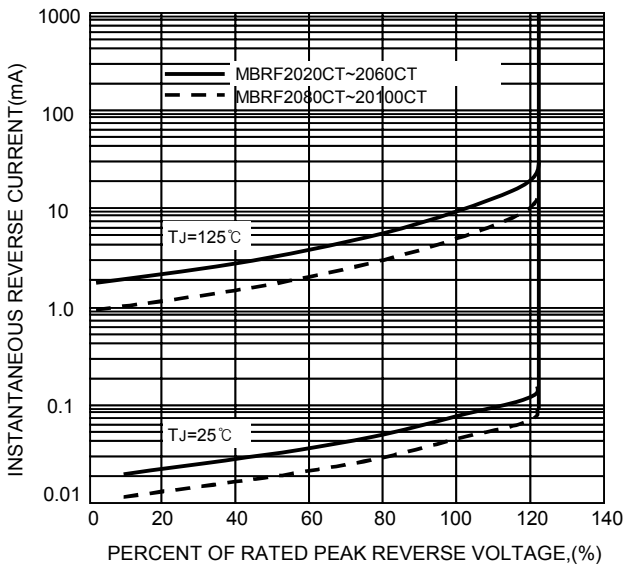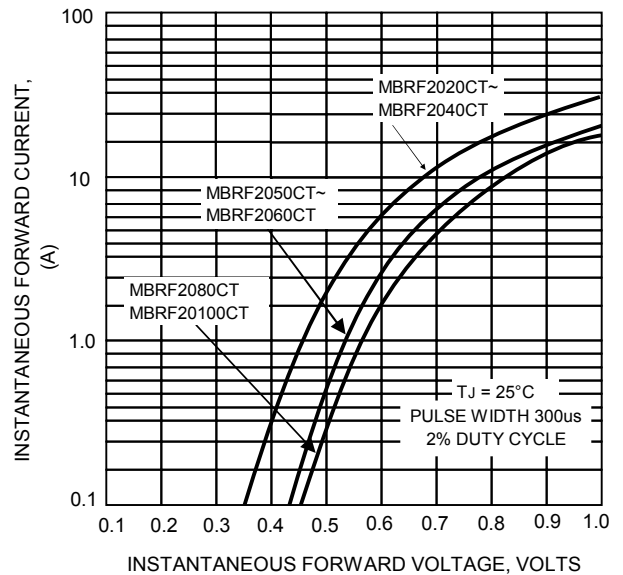
FIG.3-TYPICAL REVER CHARACTERISTICS

FIG.4-TYPICAL FORWARD CHARACTERISTICS

FIG.5 – TYPICAL JUNCTION CAPACITANCE