

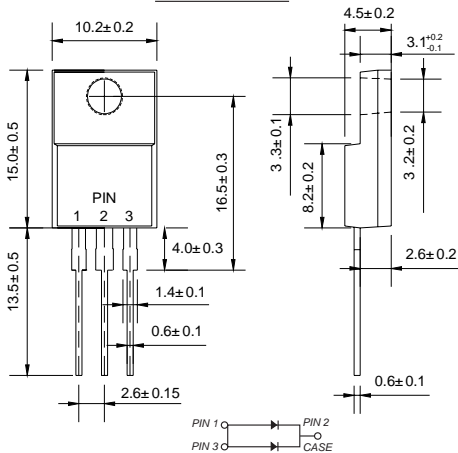


MBRF1020CT THRU MBRF10100CT

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts Forward Current -10.0 Amperes

ITO-220AB



Dimensions in inches and (millimeters)

FEATURES

- ◆ High surge capacity.
- ◆ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.
- ◆ Metal silicon junction, majority carrier conduction.
- ◆ High current capability, low forward voltage drop.
- ◆ Guard ring for over voltage protection.

MECHANICAL DATA

Case: ITO-220AB molded plastic body
Terminals: Leads solderable per MIL-STD-750, Method 2026
Polarity: As marked
Mounting Position: Any
Weight: 0.060 ounce, 1.67 grams

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%.

MDD Catalog Number	SYMBOLS	MBRF 1020CT	MBRF 1030CT	MBRF 1040CT	MBRF 1045CT	MBRF 1050CT	MBRF 1060CT	MBRF 1070CT	MBRF 1080CT	MBRF 1090CT	MBRF 10100CT	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	45	50	60	70	80	90	100	VOLTS
Maximum RMS voltage	V_{RMS}	14	21	28	32	35	42	49	56	63	70	VOLTS
Maximum DC blocking voltage	V_{DC}	20	30	40	45	50	60	70	80	90	100	VOLTS
Maximum average forward rectified current (see fig.1)	$I_{(AV)}$	10.0										Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150.0										Amps
Maximum instantaneous forward voltage at 5.0A	V_F	0.55			0.75			0.85			Volts	
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$	I_R	1.0					50.0					mA
Typical junction capacitance (NOTE 1)	C_J	550					450					pF
Typical thermal resistance (NOTE 2)	$R_{\theta JC}$	2.0										°C/W
Operating junction temperature range	T_J	-50 to +125					-50 to +150					°C
Storage temperature range	T_{STG}	-50 to +150										°C

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

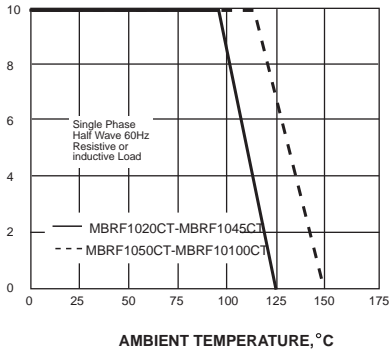
2. Thermal resistance from junction to case



RATINGS AND CHARACTERISTIC CURVES MBRF1020CT THRU MBRF10100CT

AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT, AMPERES

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

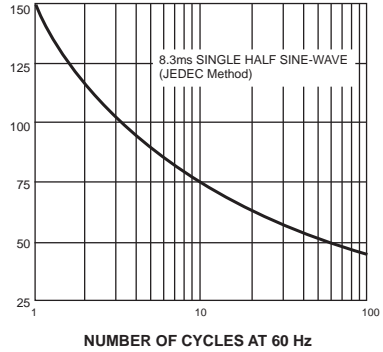
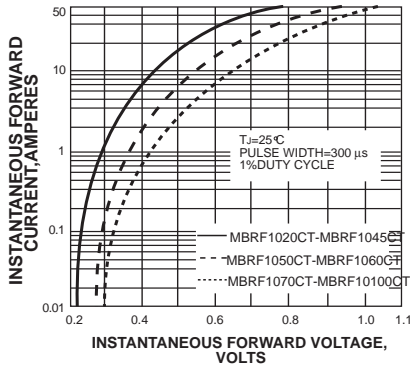
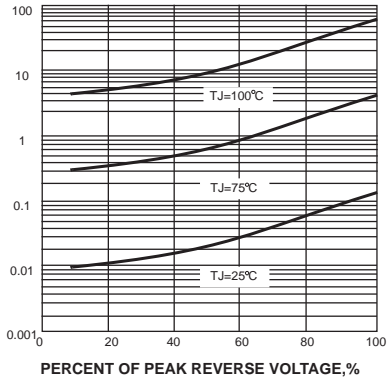


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



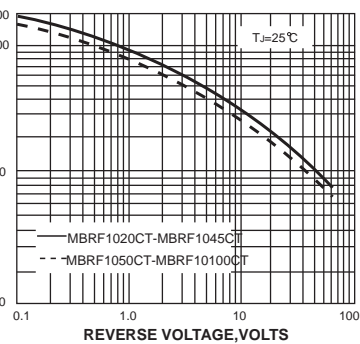
INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



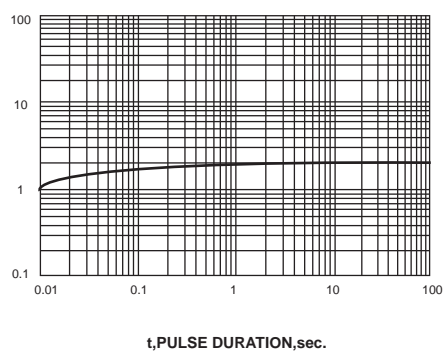
JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考!)



www.microdiode.com

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Schottky Diodes & Rectifiers](#) category:

Click to view products by [Microdiode Electronics](#) manufacturer:

Other Similar products are found below :

[MA4E2039](#) [MA4E2508M-1112](#) [MBR10100CT-BP](#) [MBR1545CT](#) [MMBD301M3T5G](#) [GS1JE-TP](#) [RB160M-50TR](#) [BAS 3010S-02LRH E6327](#)
[BAT 54-02LRH E6327](#) [NSR05F40QNXT5G](#) [NSVR05F40NXT5G](#) [NTE555](#) [JANS1N6640](#) [SB07-03C-TB-H](#) [SB1003M3-TL-W](#)
[SBAT54CWT1G](#) [SBM30-03-TR-E](#) [SK310-T](#) [SK33A-TP](#) [SK34B-TP](#) [SS3003CH-TL-E](#) [PDS3100Q-7](#) [GA01SHT18](#) [CRS10I30A\(TE85L,QM](#)
[MA4E2501L-1290](#) [MBRB30H30CT-1G](#) [BAS 70-02L E6327](#) [DMJ3940-000](#) [SB007-03C-TB-E](#) [SB10015M-TL-E](#) [SB1003M3-TL-E](#) [SK32A-](#)
[TP](#) [SK33B-TP](#) [SK35A-TP](#) [SK38B-LTP](#) [SK38B-TP](#) [NTE505](#) [NTSB30U100CT-1G](#) [VS-6CWQ10FNHM3](#) [CRG04\(T5L,TEMQ\)](#)
[ACDBA1100LR-HF](#) [ACDBA1200-HF](#) [ACDBA140-HF](#) [ACDBA2100-HF](#) [ACDBA240-HF](#) [ACDBA3100-HF](#) [CDBQC0530L-HF](#) [BAT54-](#)
[13-F](#) [ACDBA340-HF](#) [ACDBA260LR-HF](#)