MBRF2030CT thru MBRF20150CT

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - **30** to **150**Volts
FORWARD CURRENT - **20.0** Amperes

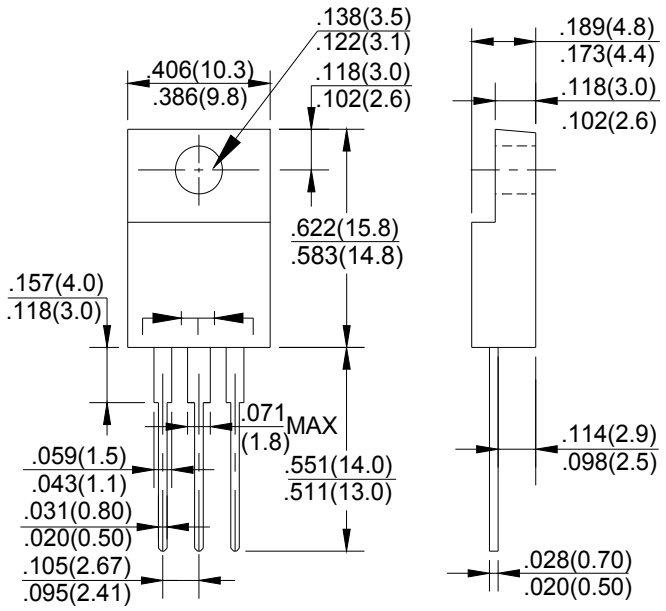
FEATURES

- ●Metal of silicon rectifier , majority carrier conduction
- ●Guard ring for transient protection
- ●Low power loss,high efficiency
- ●High current capability,low VF
- ●High surge capacity
- ●Plastic package has UL flammability classification 94V-0
- ●For use in low voltage,high frequency inverters,free wheeling,and polarity protection applications

MECHANICAL DATA

- ●Case: ITO-220AB molded plastic
- ●Polarity: As marked on the body
- ●Weight: 0.08ounces,2.24 grams
- ●Mounting position :Any

ITO-220AB



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ ambient temperature unless otherwise specified.

Single phase, half wave ,60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	MBRF 2030CT	MBRF 2040CT	MBRF 2050CT	MBRF 2060CT	MBRF 2080CT	MBRF 20100CT	MBRF 20150CT	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	30	40	50	60	80	100	150	V
Maximum RMS Voltage	V_{RMS}	21	28	35	42	56	70	105	V
Maximum DC Blocking Voltage	V_{DC}	30	40	50	60	80	100	150	V
Maximum Average Forward Rectified Current (See Fig.1)	$I_{(AV)}$	20.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I_{FSM}	150							A
Peak Forward Voltage (Note1) IF=10A @T_J=25℃	V_F	-		0.80		0.85		0.95	V
IF=10A @T_J=125℃		0.57		0.70		0.75		0.85	
IF=20A @T_J=25℃		0.84		0.95		0.95		1.05	
IF=20A @T_J=125℃		0.72		0.85		0.85		0.95	
Maximum DC Reverse Current @T_J=25℃ at Rated DC Bolcking Voltage @T_J=125℃	I_R	0.1		0.1		0.1		0.1	mA
		15		10		7.5		5.0	
Typical Junction Capacitance (Note2)	C_J	400		320					pF
Typical Thermal Resistance (Note3)	$R_{\theta JC}$	1.5				3.5			℃/W
Operating Temperature Range	T_J	-55 to +150							℃
Storage Temperature Range	T_{STG}	-55 to +175							℃

NOTES:1.300us pulse width,2% duty cycle.

2.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

3.Thermal resistance junction to case.

4.The typical data above is for reference only(典型值仅供参考).

RATING AND CHARACTERTIC CURVES
MBRF2030CT thru MBRF20150CT

FIG. 1 – FORWARD CURRENT DERATING CURVE

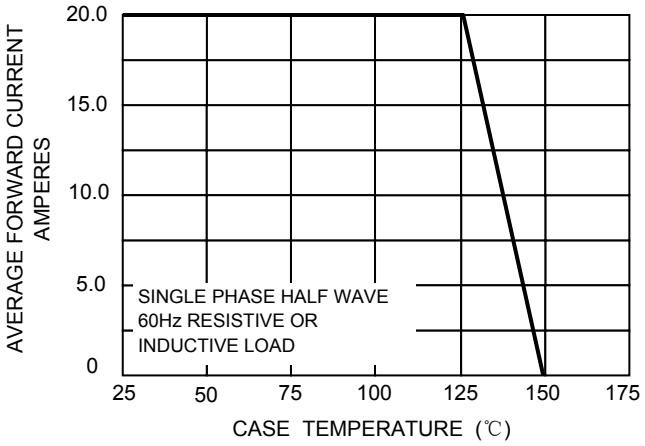


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

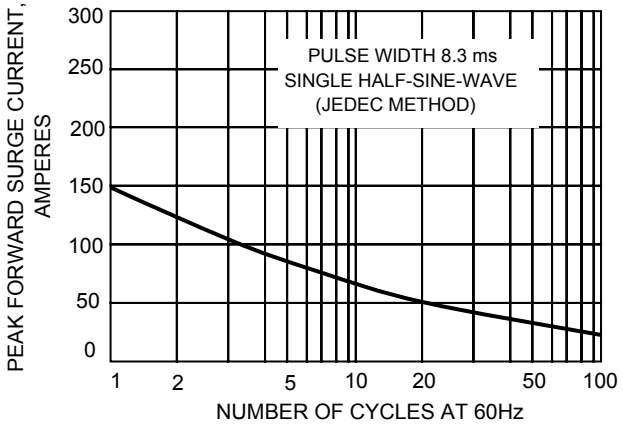


FIG.3-TYPICAL REVERSE CHARACTERISTICS

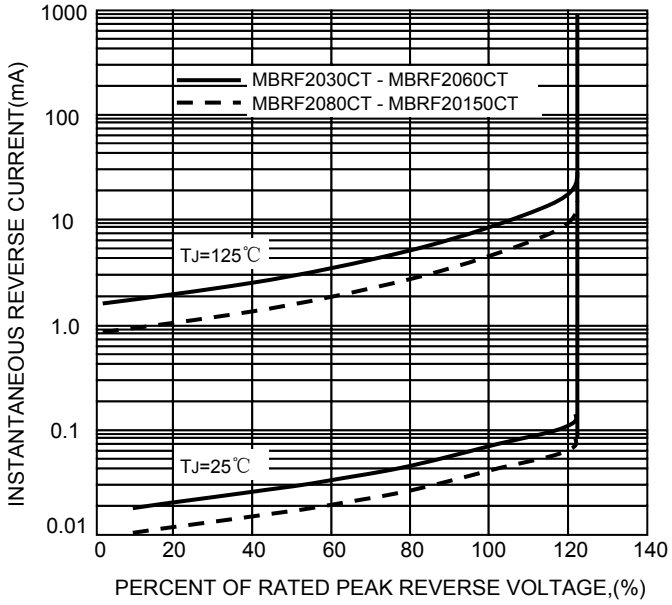


FIG.4-TYPICAL FORWARD CHARACTERISTICS

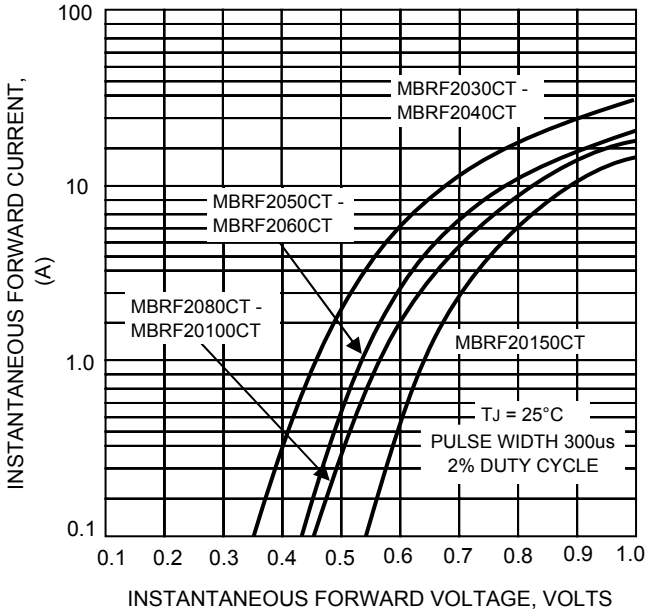
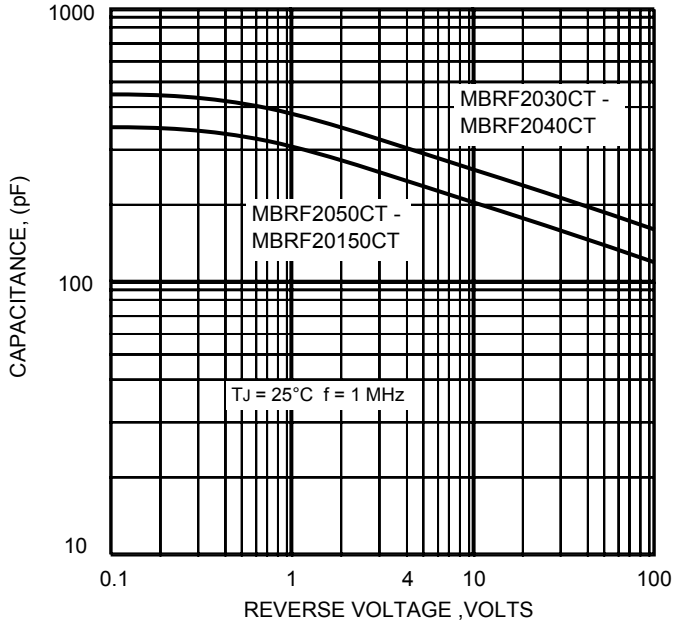


FIG.5 – TYPICAL JUNCTION CAPACITANCE



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

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