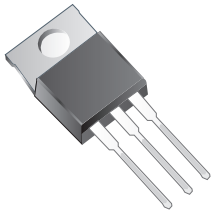
THE DATASHEET OF

MBR20150CT-G

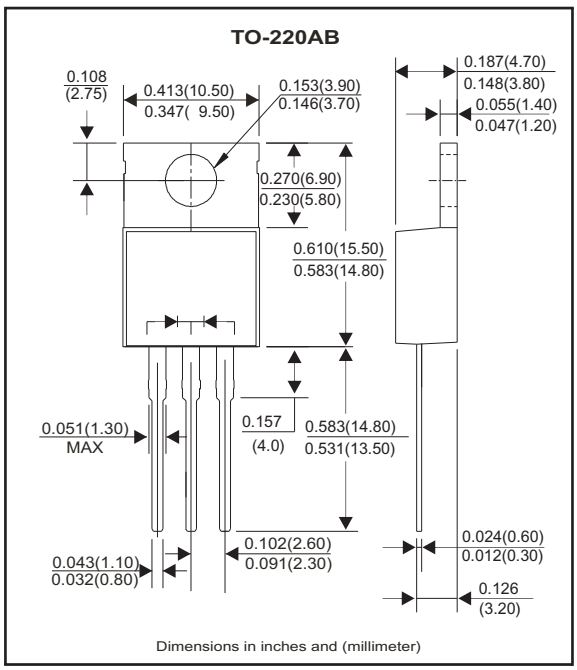
MBR2030CT-G Thru. MBR20150CT-G

Voltage: 30 to 150 V
Current: 20.0 A
RoHS Device



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.
-For use in low voltage, high frequency inverters, free wheeling,and polarity protection applications.



Mechanical Data

-Case: TO-220AB, molded plastic
-Epoxy: UL 94-V0 rate flame retardant.
-Polarity: As marked on the body.
-Mounting position: Any
-Weight: 2.24 grams

Electrical Characteristics (at T_A=25°C unless otherwise noted)

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

Parameter		Symbol	MBR 2030CT-G	MBR 2040CT-G	MBR 2050CT-G	MBR 2060CT-G	MBR 2080CT-G	MBR 20100CT-G	MBR 20150CT-G	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 Surage Current , 8.3ms Single Half Sine-Wave Super Imposed On Rated Load(JEDEC Method)		I_{FSM}	150							A
Peak Forward Voltage (Note 1)	IF=10A@ T_J= 25°C	V_F	-		0.80		0.85		0.95	V
	IF=10A@ T_J=125°C		0.57		0.70		0.75		0.85	
	IF=20A@ T_J= 25°C		0.84		0.95		0.95		1.05	
	IF=20A@ T_J=125°C		0.72		0.85		0.85		0.95	
Maximum DC Reverse Current at Rate DC Blocking Voltage	@ T_J= 25°C	I_R	0.10		0.10		0.10		0.10	mA
	@ T_J= 125°C		15.0		10.0		7.50		5.00	
Typical Junction Capacitance (Note2)		C_J	400		320					pF
Typical Thermal Resistance (Note3)		$R_{\theta JC}$	1.50				3.50			°C/W
Operating Temperature Range		T_J	-55 to +150							°C
Storage Temperature Range		T_{STG}	-55 to +175							°C

NOTES:
1. 300us pulse width,2% duty cycle.
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
3. Thermal resistance junction to case.

REV:B

RATING AND CHARACTERISTIC CURVES (MBR2030CT-G Thru. MBR20150CT-G)

FIG.1- Forward Current Derating Curve

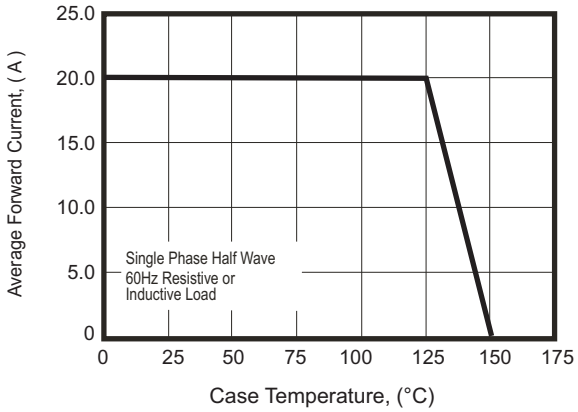


FIG.2- Maximum Non-Repetitive Surge Current

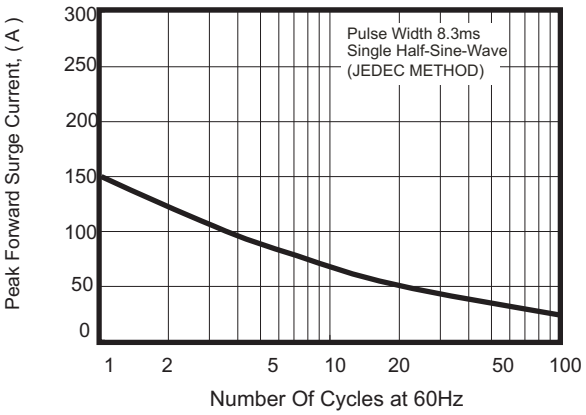


FIG.3- Typical Rever Characteristics

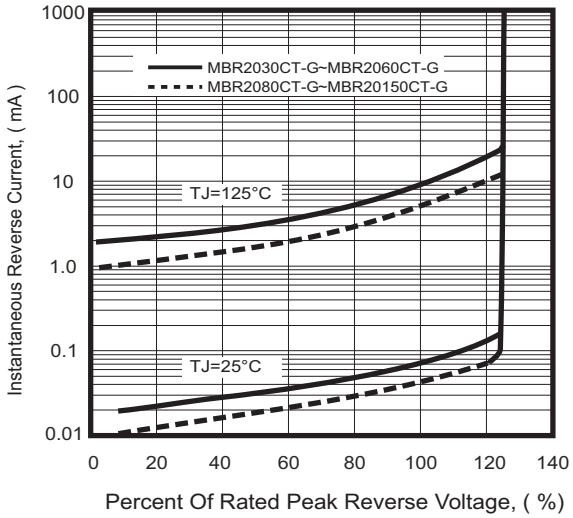


FIG.4- Typical Forward Characteristics

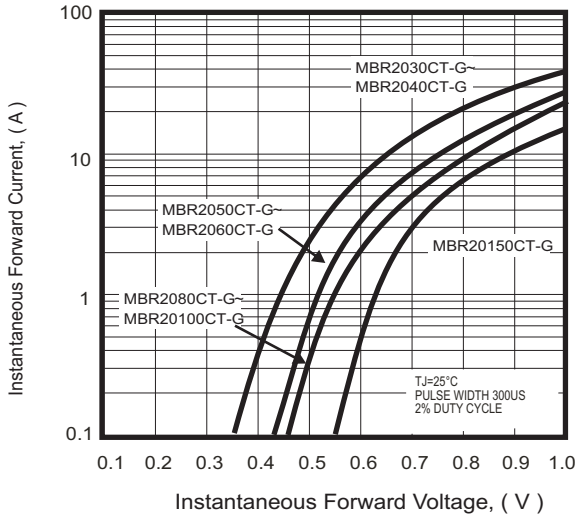
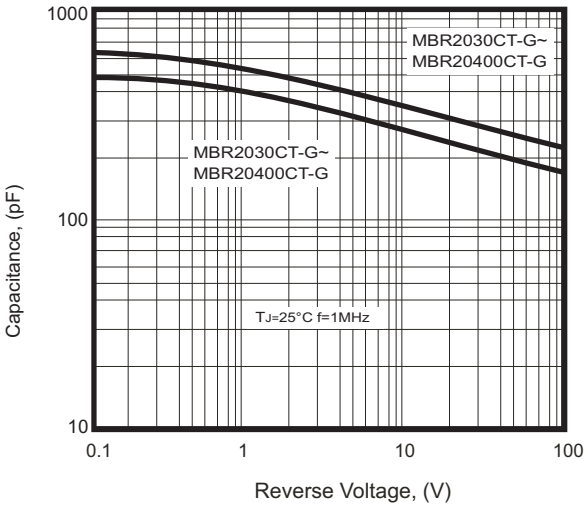
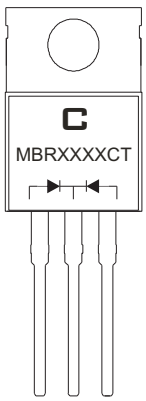


FIG.5- Typical Junction Capacitance



Marking Code

Part Number	Marking code
MBR2030CT-G	MBR2030CT
MBR2040CT-G	MBR2040CT
MBR2050CT-G	MBR2050CT
MBR2060CT-G	MBR2060CT
MBR2080CT-G	MBR2080CT
MBR20100CT-G	MBR20100CT
MBR20150CT-G	MBR20150CT



XXXX = Product type marking code
⊏ = Compchip Logo

Standard Packaging

Case Type	TUBE PACK	
	TUBE (pcs)	BOX (pcs)
TO-220AB	50	8,000

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