

15A Schottky Barrier Rectifiers

Features

- Guarding for over voltage protection
- Lower power losses, high efficiency
- Low forward voltage drop
- High forward surge capability
- High frequency operation
- Solder dip 260° C, 40s
- RoHS compliance



TO-220



Mechanical Data

Case:	JEDEC TO-220, molded plastic body
Epoxy:	Plastic package has UL flammability classification 94V-0
Terminals:	Matte tin plated leads, solderable per J-STD-002 and JESD22-B102
Polarity	As marked
Mounting Position:	Any
Mounting Torque:	10 in-lbs maximum
Weight:	0.08 ounces, 2.24 grams

Maximum Ratings ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	MBR1535CT	MBR1545CT	MBR1550CT	MBR1560CT	Unit	Conditions
VRRM	Maximum Repetitive Peak Reverse Voltage	35	45	50	60	V	
VRWM	Working Peak Reverse Voltage	35	45	50	60	V	
VDC	Maximum DC Blocking Voltage	35	45	50	60	V	
IF(AV)	Maximum Average Forward Rectified Current at $T_C=105^{\circ}C$	15				A	Total Device
		7.5					Per Diode
IFSM	Peak Forward Surge Current per Diode	150				A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)
IRRM	Peak Repetitive Reverse Surge Current per Diode	1.0		0.5		A	$t_p=2.0\mu S$, 1kHz
dV/dt	Voltage Rate of Change	10000				V/ μS	rated VR

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MBR1535CT - MBR1560CT

Symbol	Description	MBR1535CT	MBR1545CT	MBR1550CT	MBR1560CT	Unit	Conditions
T_J	Operating Junction Temperature Range	-65 to +125	-65 to +150			° C	
T_{STG}	Storage Temperature Range	-65 to +175				° C	

Electrical Characteristics ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	MBR1535CT	MBR1545CT	MBR1550CT	MBR1560CT	Unit	Conditions
V_F	Maximum Instantaneous Forward Voltage per Diode (Note 1)	-		0.75		V	I _F =7.5A, T _C =25 °C
		0.57		0.65			I _F =7.5A, T _C =125 °C
		0.84		-			I _F =15A, T _C =25 °C
		0.72		-			I _F =15A, T _C =125 °C
I_R	Maximum Instantaneous Reverse Current at rated DC Blocking Voltage per Diode (Note 1)	0.1		1.0		mA	T _C =25 °C
		15		50			T _C =125°C
R_{θ-JA}	Maximum Thermal Resistance per Diode	60				° C/W	
R_{θ-JC}		3.0					

Note 1: Pulse test: 300µs pulse width, 1% duty cycle.

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Typical Characteristics Curves

Fig.1- Forward Current Derating Curve

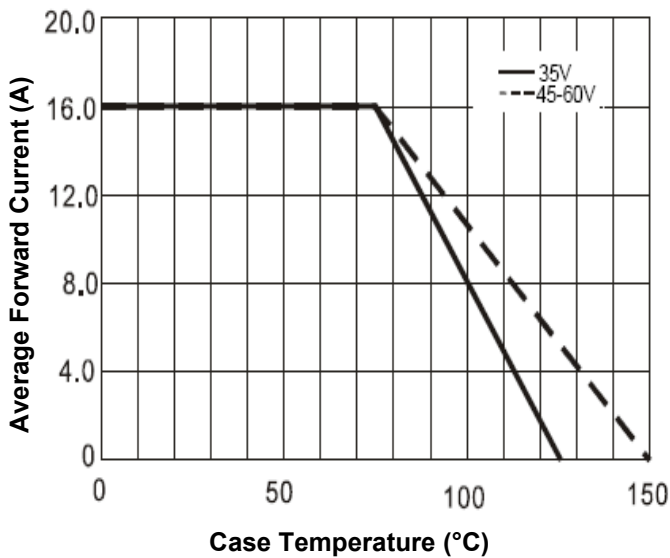


Fig.2- Max. Non-Repetitive Peak Forward Surge Current

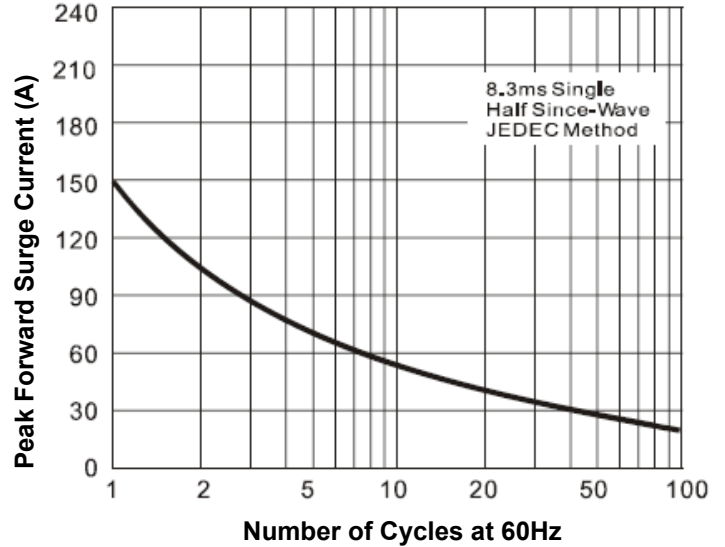


Fig.3- Typical Instantaneous Forward Characteristics

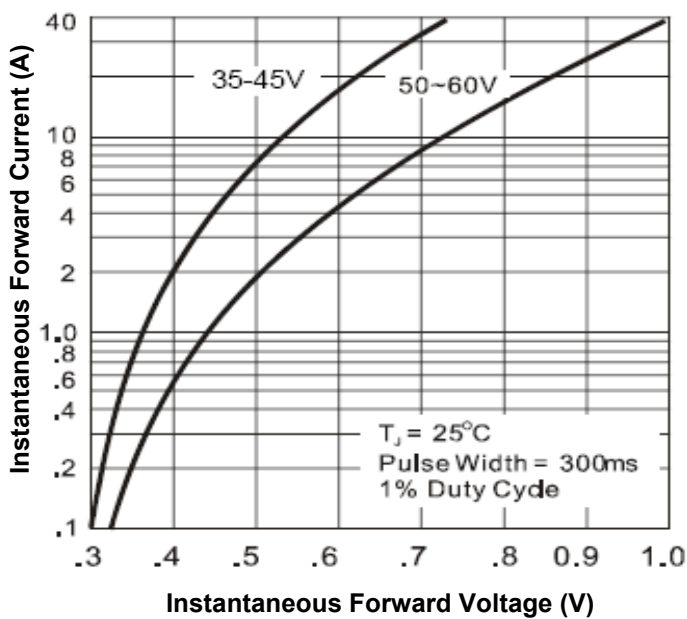
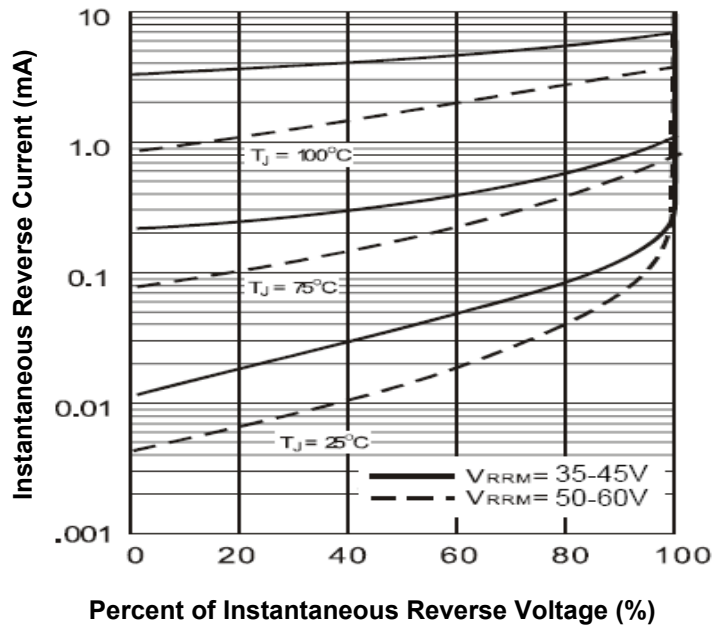


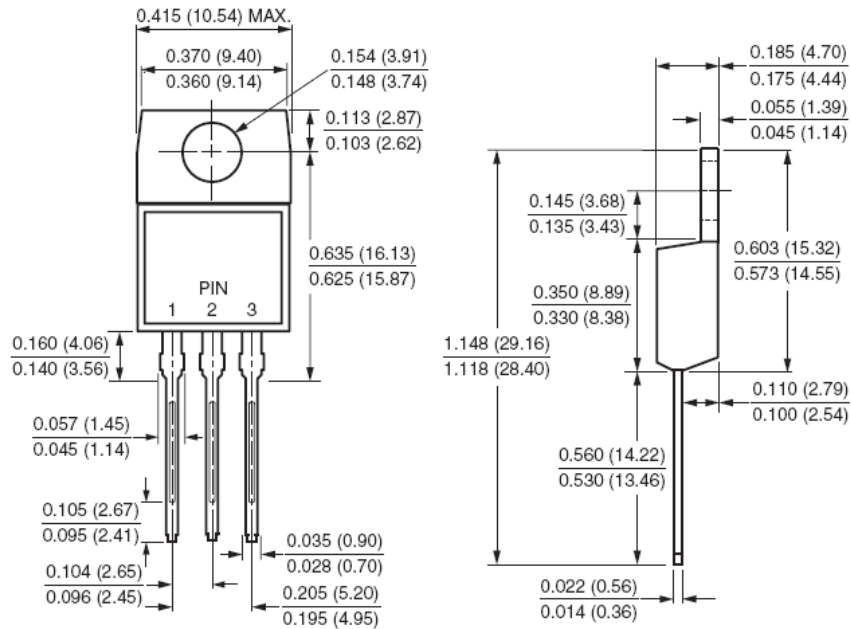
Fig.4- Typical Reverse Characteristics



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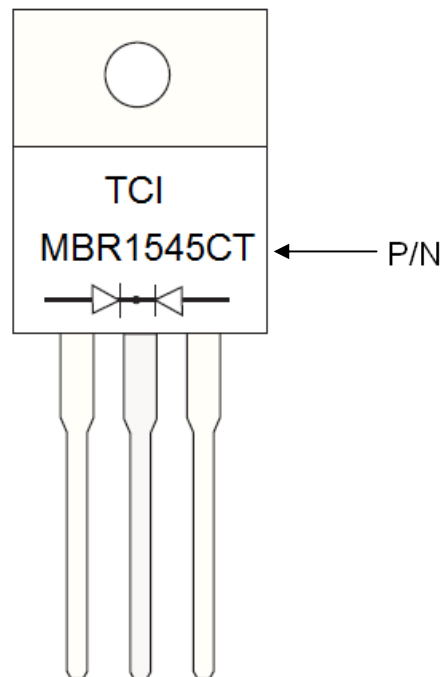
MBR1535CT - MBR1560CT

Dimensions in inches (mm)



TO-220

Marking Information:



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