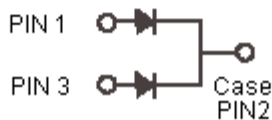
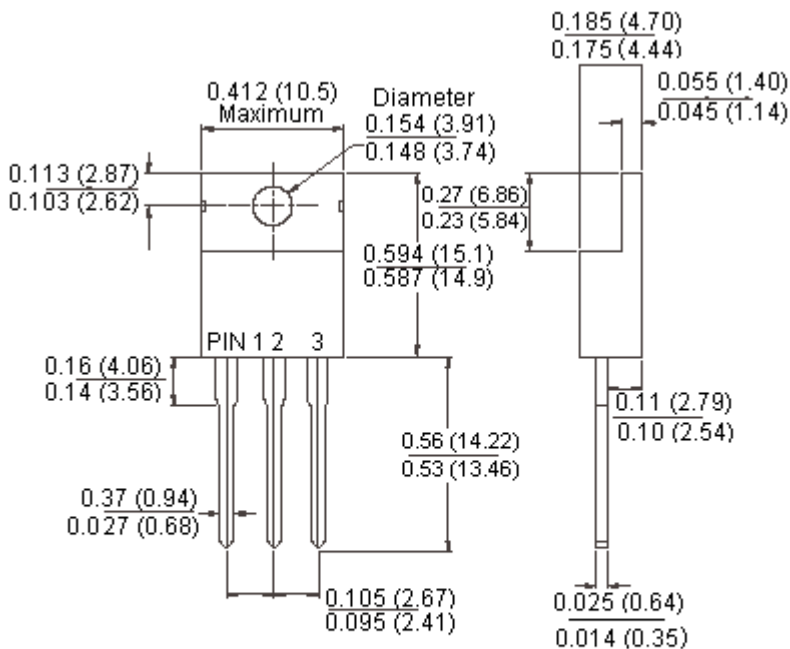




Features:

- Plastic material.
- Metal silicon rectifier, majority carrier conduction.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- High surge capability.
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.
- Guardring for over voltage protection.
- High temperature soldering guaranteed: 260°C/10 seconds, 0.25 inch (6.35mm) from case.

TO-220AB



Dimensions : Inches (Millimetres)

Mechanical Data:

Cases	: JEDEC TO-220AB moulded plastic body.
Terminals	: Pure tin plated, lead free, solderable per MIL-STD-750, Method 2026.
Polarity	: As marked.
Mounting position	: Any.
Mounting torque	: 5 in. - lbs. maximum.
Weight	: 0.08 ounce, 2.24 grams.

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

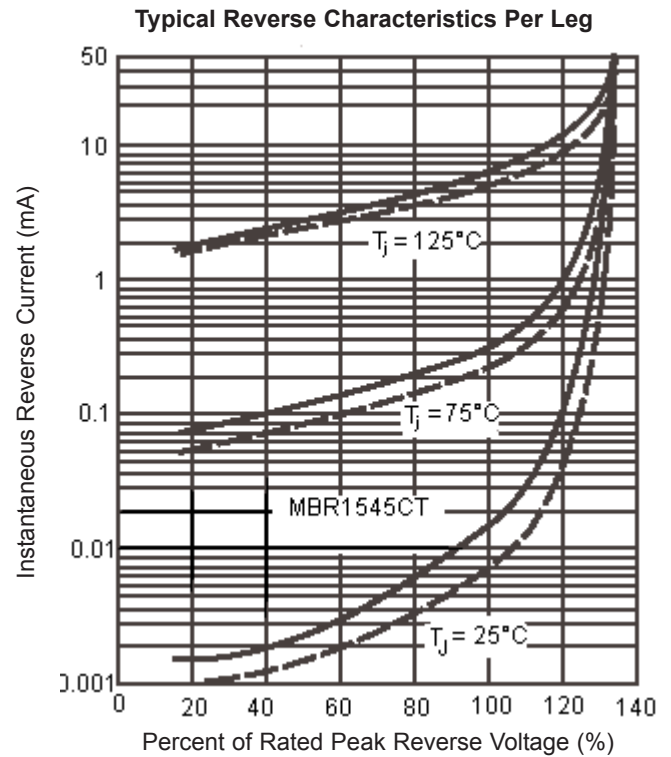
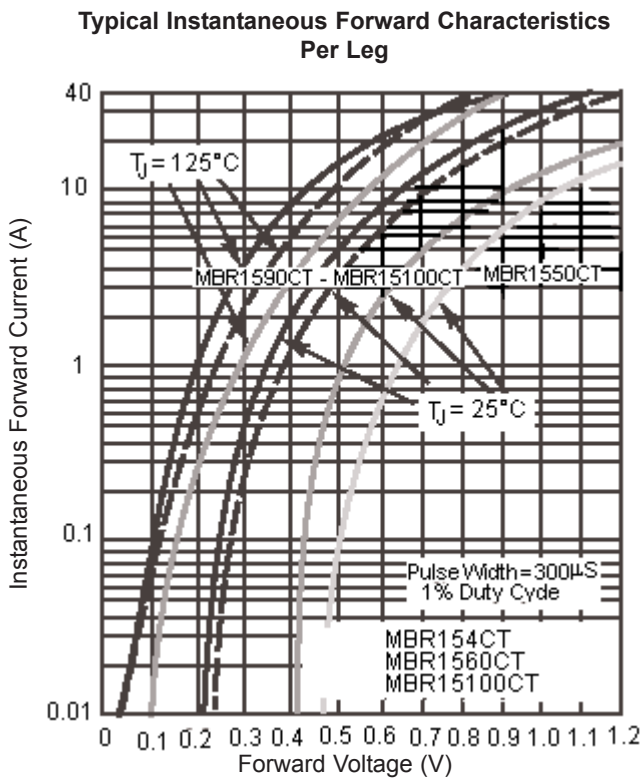
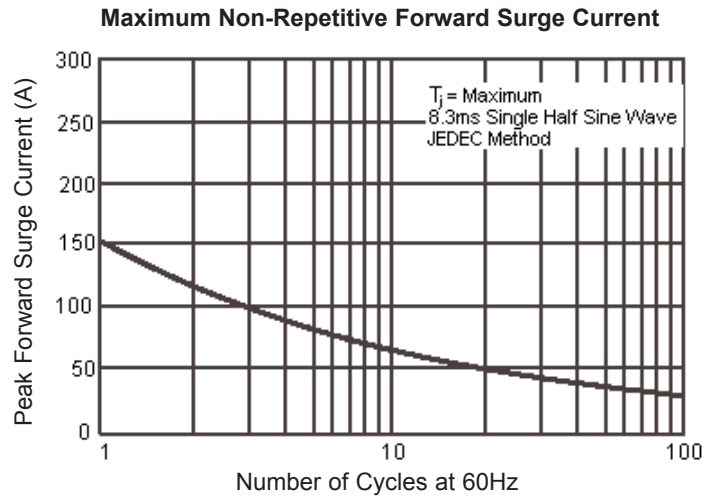
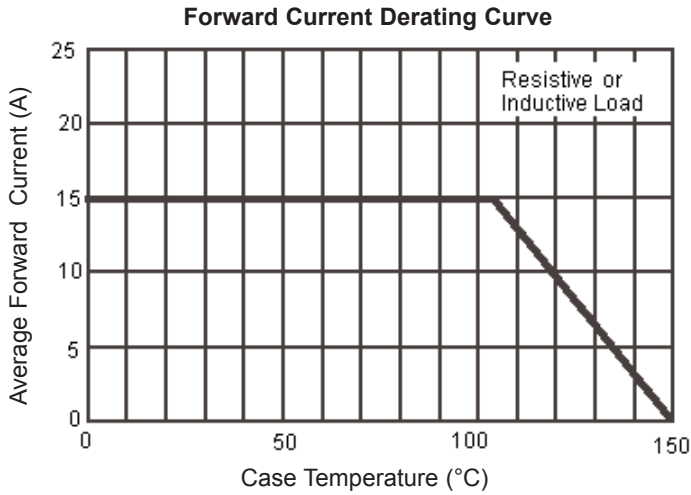
Type Number	Symbol	MBR 1545CT	MBR 1560CT	MBR 15100CT	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	45	60	100	V
Maximum RMS Voltage	V_{RMS}	31	42	70	
Maximum DC Blocking Voltage	V_{DC}	45	60	100	
Maximum Average Forward Rectified Current at $T_C = 105^\circ\text{C}$	$I_{(AV)}$	15			A
Peak Repetitive Forward Current (Rated V_R , Square Wave, 20KHz) at $T_C = 105^\circ\text{C}$	I_{FRM}	15			
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	150			
Peak Repetitive Reverse Surge Current (Note 1)	I_{RRM}	1.0	0.5		
Maximum Instantaneous Forward Voltage at: (Note 2) $I_F = 7.5\text{A}, T_C = 25^\circ\text{C}$ $I_F = 7.5\text{A}, T_C = 125^\circ\text{C}$ $I_F = 15\text{A}, T_C = 25^\circ\text{C}$ $I_F = 15\text{A}, T_C = 125^\circ\text{C}$	V_F	0.57 0.84 0.72 -	0.75 0.65 - -	0.92 0.82 - -	V
Maximum Instantaneous Reverse Current at $T_C = 25^\circ\text{C}$ at Rated DC Blocking Voltage at $T_C = 125^\circ\text{C}$ (Note 2)	I_R	0.5 10	0.3 7.5	0.1 5.0	μA μA
Voltage Rate of Change (Rated V_R)	dV/dt	10,000			$\text{V}/\mu\text{S}$
Typical Junction Capacitance	C_j	400		200	pF
Maximum Typical Thermal Resistance, (Note 3)	$R_{\theta JA}$ $R_{\theta JC}$	10 1.5			$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_J	-65 to +150			$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 to +175			

Notes: 1. 2.0 μs Pulse Width, $f = 1.0\text{KHz}$.

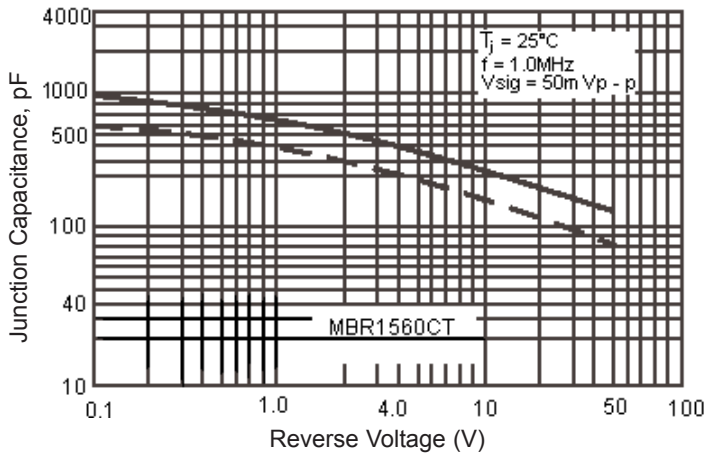
2. Pulse Test: 300 μs Pulse Width, 1% Duty Cycle.

3. Mount on Heatsink Size of 2 x 3 x 0.25 inches Al-Plate.

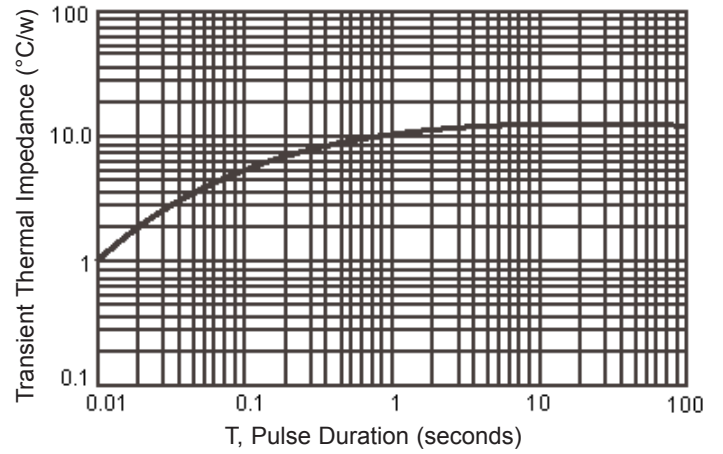
Ratings and Characteristic Curves (MBR15100CT, MBR1545CT and MBR1560CT)



Typical Junction Capacitance Per Leg



Typical Transient Thermal Characteristics Per Leg



Part Number Table

Description	Part Number
Diode, Schottky, 15A, 100V	MBR15100CT
Diode, Schottky, 15A, 45V	MBR1545CT
Diode, Schottky, 15A, 60V	MBR1560CT

Notes:

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