

TECHNICAL DATA
DATA SHEET

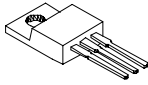
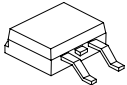
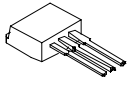
MBR15..CT/MBRB15..CT/MBR15..CT-1
SCHOTTKY RECTIFIER

Applications:

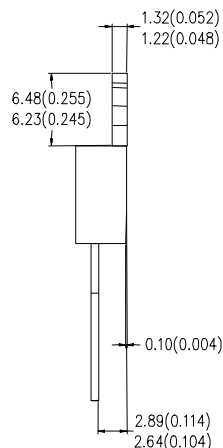
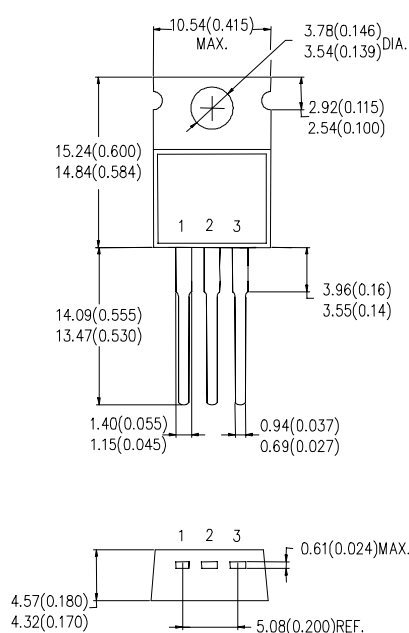
- Switching power supply • Converters • Free-Wheeling diodes • Reverse battery protection

Features:

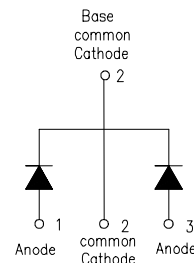
- 150° C T_J operation
- Center tap TO-220, D Pak and TO-262 packages
- Low forward voltage drop
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability

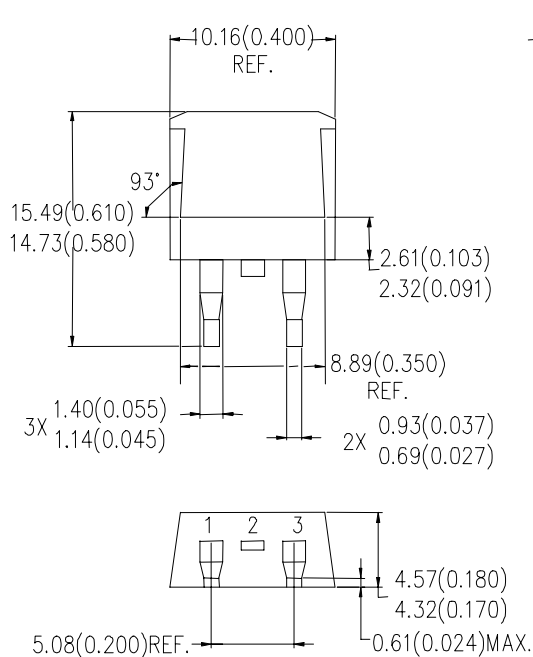
| Case Styles | | |
|---|---|---|
| MBR1535CT MBR1545CT | MBRB1535CT MBRB1545CT | MBR1535CT-1 MBR1545CT-1 |
|  |  |  |
| TO-220 | D²PAK | TO-262 |

Mechanical Dimensions: In Inches / mm

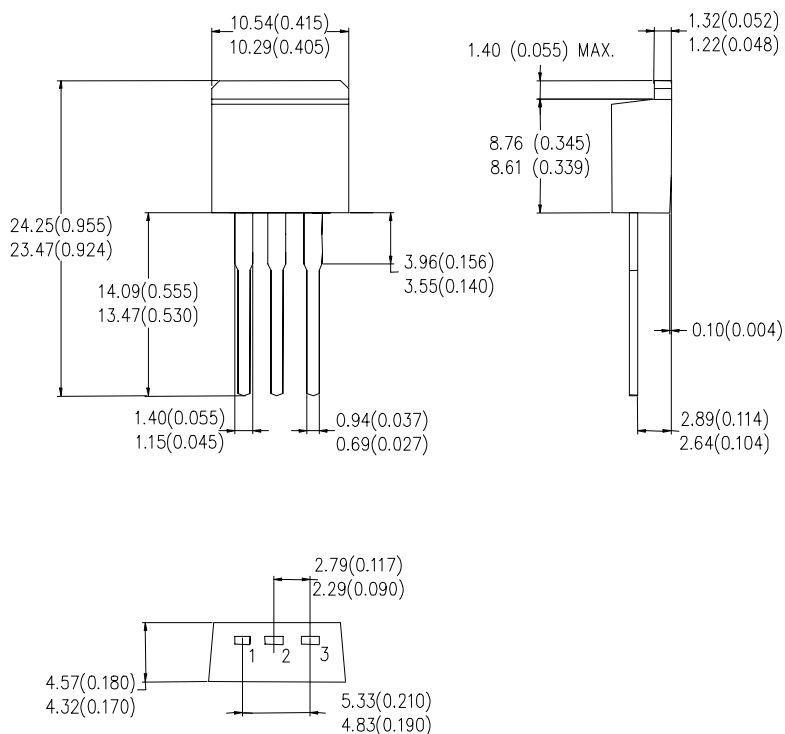
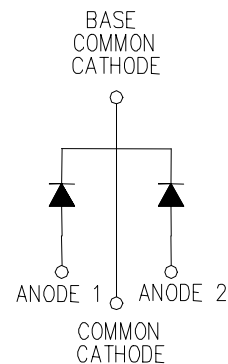


TO-220AB

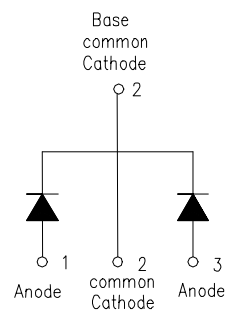




D²-PAK



TO-262



**SENSITRON****SEMICONDUCTOR**

MBR1535/1545CT
MBRB1535/1545CT
MBR1535/1545CT-1

Maximum Ratings:

| Characteristics | Symbol | Condition | Max. | Units |
|--|-------------|---|--|-------|
| Peak Inverse Voltage | V_{RWM} | - | 35 | V |
| | | | 45 | |
| | | | MBR1535CT MBRB1535CT MBR1535CT-1 | |
| | | | MBR1545CT MBRB1545CT MBR1545CT-1 | |
| Max. Average Forward Current | $I_{F(AV)}$ | 50% duty cycle, @ $T_C=105^{\circ}\text{C}$, rectangular wave form | 7.5(Per Leg) 15(Per Device) | A |
| Max. Peak One Cycle Non-Repetitive Surge Current | I_{FSM} | 8.3 ms, half Sine pulse | 180 | A |
| Peak Repetitive Reverse Surge Current | I_{RRM} | 2.0 μsec 1.0 KHz | 1.0 | A |

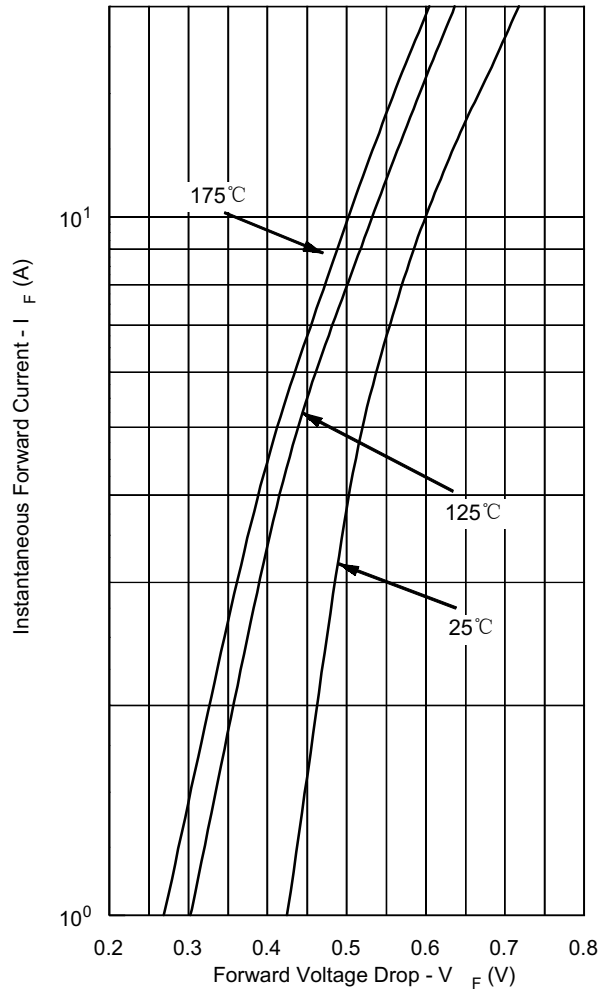
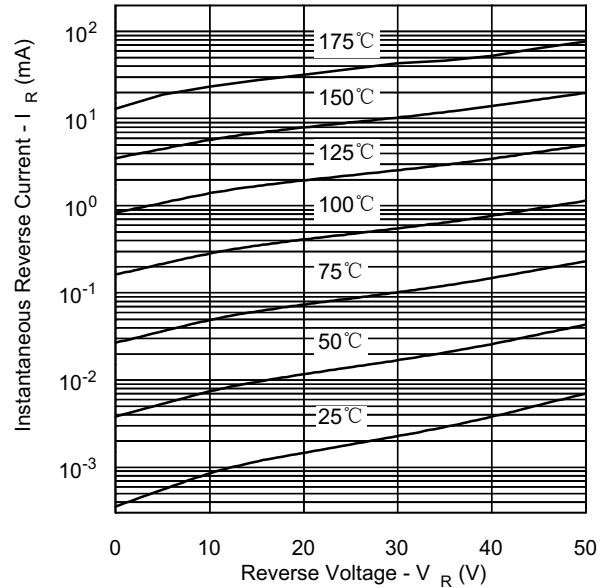
Electrical Characteristics:

| Characteristics | Symbol | Condition | Max. | Units |
|-----------------------------|----------|--|-------|------------------|
| Max. Forward Voltage Drop | V_{F1} | @ 15 A, Pulse, $T_J = 25^{\circ}\text{C}$ | 0.84 | V |
| | V_{F2} | @ 7.5 A, Pulse, $T_J = 125^{\circ}\text{C}$ | 0.57 | V |
| | | @ 15 A, Pulse, $T_J = 125^{\circ}\text{C}$ | 0.72 | |
| Max. Reverse Current * | I_{R1} | @ V_R = Rated V_R , Pulse, $T_J = 25^{\circ}\text{C}$ | 0.1 | mA |
| | I_{R2} | @ V_R = Rated V_R , Pulse, $T_J = 125^{\circ}\text{C}$ | 15 | mA |
| Max. Junction Capacitance | C_T | @ $V_R = 5\text{V}$, $T_C = 25^{\circ}\text{C}$ $f_{SIG} = 1\text{MHz}$, $V_{SIG} = 50\text{mV}$ (p-p) | 400 | pF |
| Typical Series Inductance | L_S | Measured lead to lead 5 mm from package body | 8.0 | nH |
| Max. Voltage Rate of Change | dv/dt | - | 10,00 | V/ μs |

- Pulse Width < 300 μs , Duty Cycle <2%

Thermal-Mechanical Specifications:

| Characteristics | Symbol | Condition | Specification | Units |
|---|---|--------------------------------------|---------------------|----------------------|
| Max. Junction Temperature | T_J | - | -65 to +150 | $^{\circ}\text{C}$ |
| Max. Storage Temperature | T_{stg} | - | -65 to +175 | $^{\circ}\text{C}$ |
| Maximum Thermal Resistance Junction to Case (per leg) | $R_{\theta JC}$ | DC operation | 3.0 | $^{\circ}\text{C/W}$ |
| Typical Thermal Resistance, Case to Heat Sink | $R_{\theta CS}$ | Mounting surface, smooth and greased | 0.50 | $^{\circ}\text{C/W}$ |
| Max. Thermal Resistance Junction | $R_{\theta JA}$ | DC operation | 60 | $^{\circ}\text{C/W}$ |
| Approximate Weight | wt | - | 2 | g |
| Mounting Torque | T_M | - | 6 (min) 12 (max) | Kg-cm |
| Case Style | TO-220AB D ² PAK TO-262 (Suffix "-1" for TO-262; "MBRB xxxx" for D ² PAK) | | | |

**SENSITRON****SEMICONDUCTOR****MBR1535/1545CT
MBRB1535/1545CT
MBR1535/1545CT-1****Typical Forward Characteristics****Typical Reverse Characteristics****Typical Junction Capacitance**