FAIRCHILD SEMICONDUCTOR®

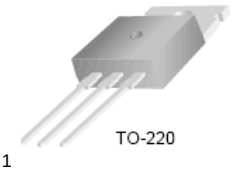
August 2008

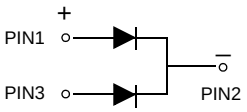
MBR20150CT

Dual High Voltage Schotty Rectifier

Features:

- Low Forward Voltage Drop
- Low Power Loss and High Efficiency
- High Surge Capability
- Rohs Compliant
- Matte Tin(Sn) Lead Finish
- Terminal Leads Surface is Corrosion Resistant and can withstand to 260°C
- Wave Soldering or per MIL-STD-750 Method 2026.





Mark : MBR20150CT

Absolute Maximum Ratings* T_a = 25°C unless otherwise noted

Symbol	Parameter	Value	Unit
V_{RRM}	Maximum Repetitive Reverse Voltage	150	V
V_R	Maximum DC Reverse Voltage	150	V
$I_{F(AV)}$	Average Rectified Forward Current, Tc=120°C	10 (Per Leg) 20(Per Device)	A
I_{FSM}	Peak Forward Surge Current, 8.3mS Half Sine wave	150	A
T_{STG}	Storage Temperature Range	-55 ~ 150	°C
T_J	Operating Junction Temperature	150	°C

* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

Thermal Characteristics* T_a=25°C unless otherwise noted

Symbol	Parameter	Max	Unit
$R_{\theta JC}$	Thermal Resistance, Junction to Case per Leg	1.5	°C/W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient per Leg	62.5	°C/W

* MIL standard 883-1012 & JESD51-10

Electrical Characteristics* T_a=25°C unless otherwise noted

Symbol	Parameter	Test Condition		Min.	Max.	Unit
I_R	Reverse Current	V_R= 150V V_R= 150V	T_C = 25 °C T_C = 125 °C		0.2 5	mA
V_F	Forward Voltage	I_F= 10A I_F= 10A I_F= 20A I_F= 20A	T_C = 25 °C T_C = 125 °C T_C = 25 °C T_C = 125 °C		0.85 0.75 0.95 0.85	V

* DC Item are tested by Pulse Test : Pulse Width≤300us, Duty Cycle≤2%

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Typical Performance Characteristics

Figure 1. Forward Current Characteristics

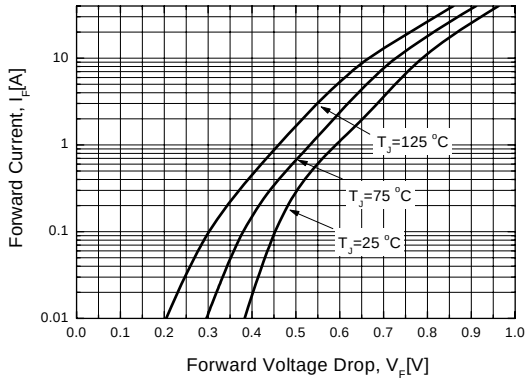


Figure 2. Reverse Leakage Current

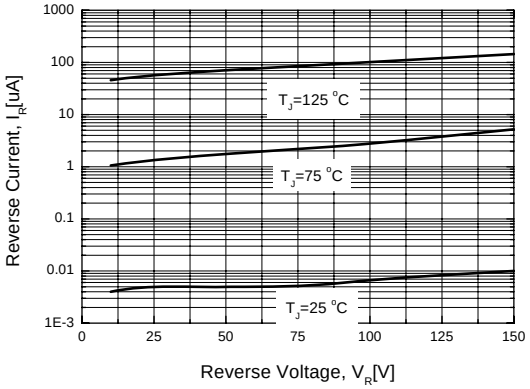


Figure 3.Junction Capacitance

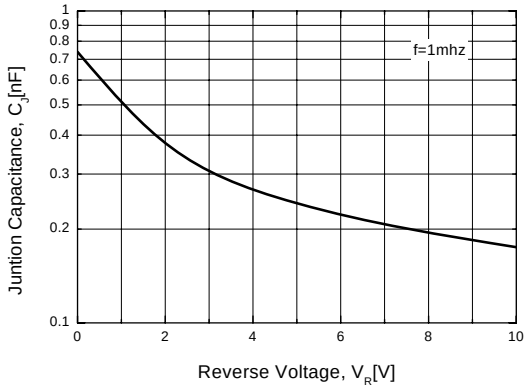
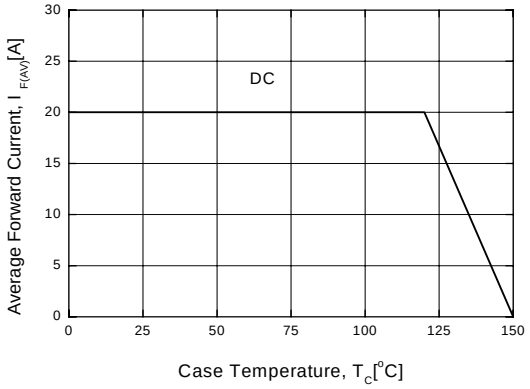


Figure 4. Power Derating



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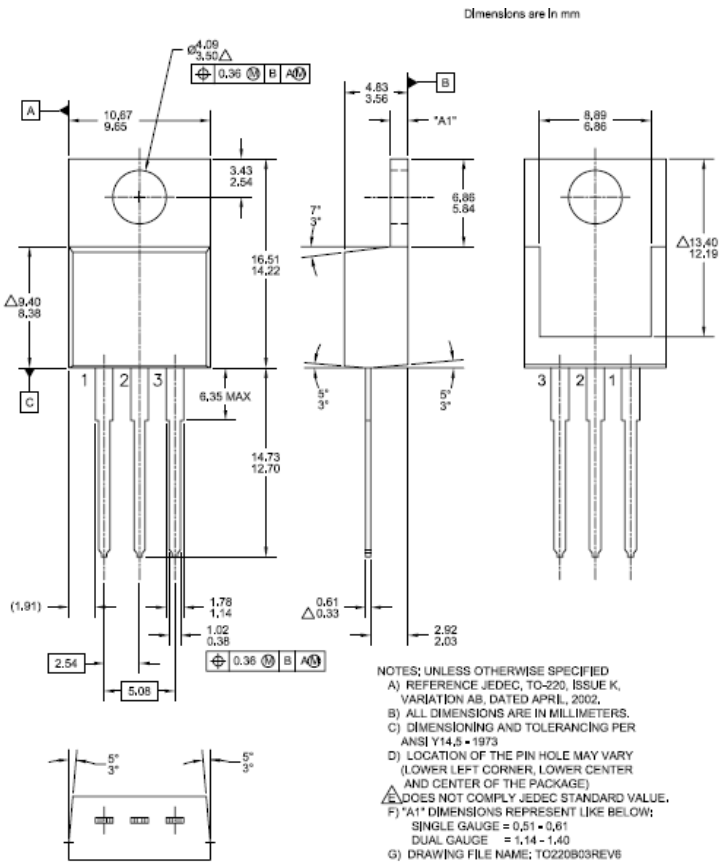
Package Dimensions

TO-220(DUAL GAUGE)



Dimensions in Millimeters

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