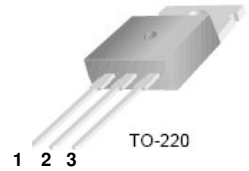
FAIRCHILD SEMICONDUCTOR®

June 2009

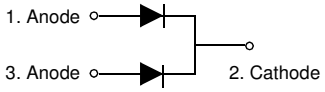
MBR20150CT
Dual High Voltage Schottky Rectifier

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℃
- Wave Soldering or per MIL-STD-750 Method 2026.
- Dual common Cathode.



Mark : MBR20150CT



Absolute Maximum Ratings* T_A = 25℃ 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, T_C=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 to + 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 T_C = 25 °C V_R= 150V T_C = 125 °C		0.2 5	mA
V_F	Forward Voltage	I_F= 10A T_C = 25 °C I_F= 10A T_C = 125 °C I_F= 20A T_C = 25 °C I_F= 20A 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%

Typical Performance Characteristics

Figure 1. Forward Current Characteristics

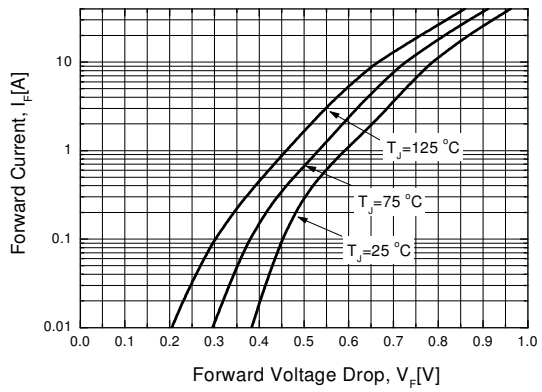


Figure 2. Reverse Leakage Current

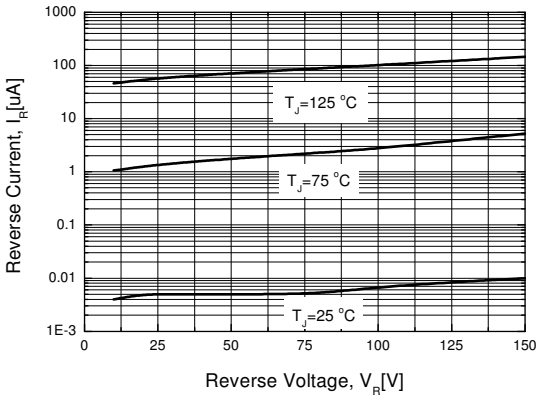


Figure 3.Junction Capacitance

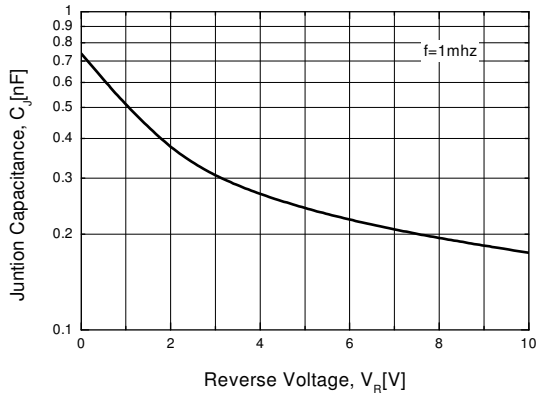
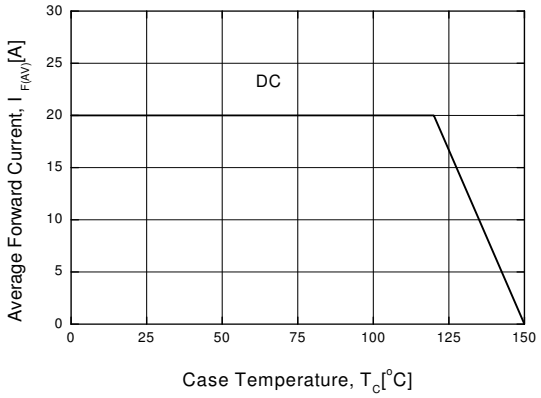
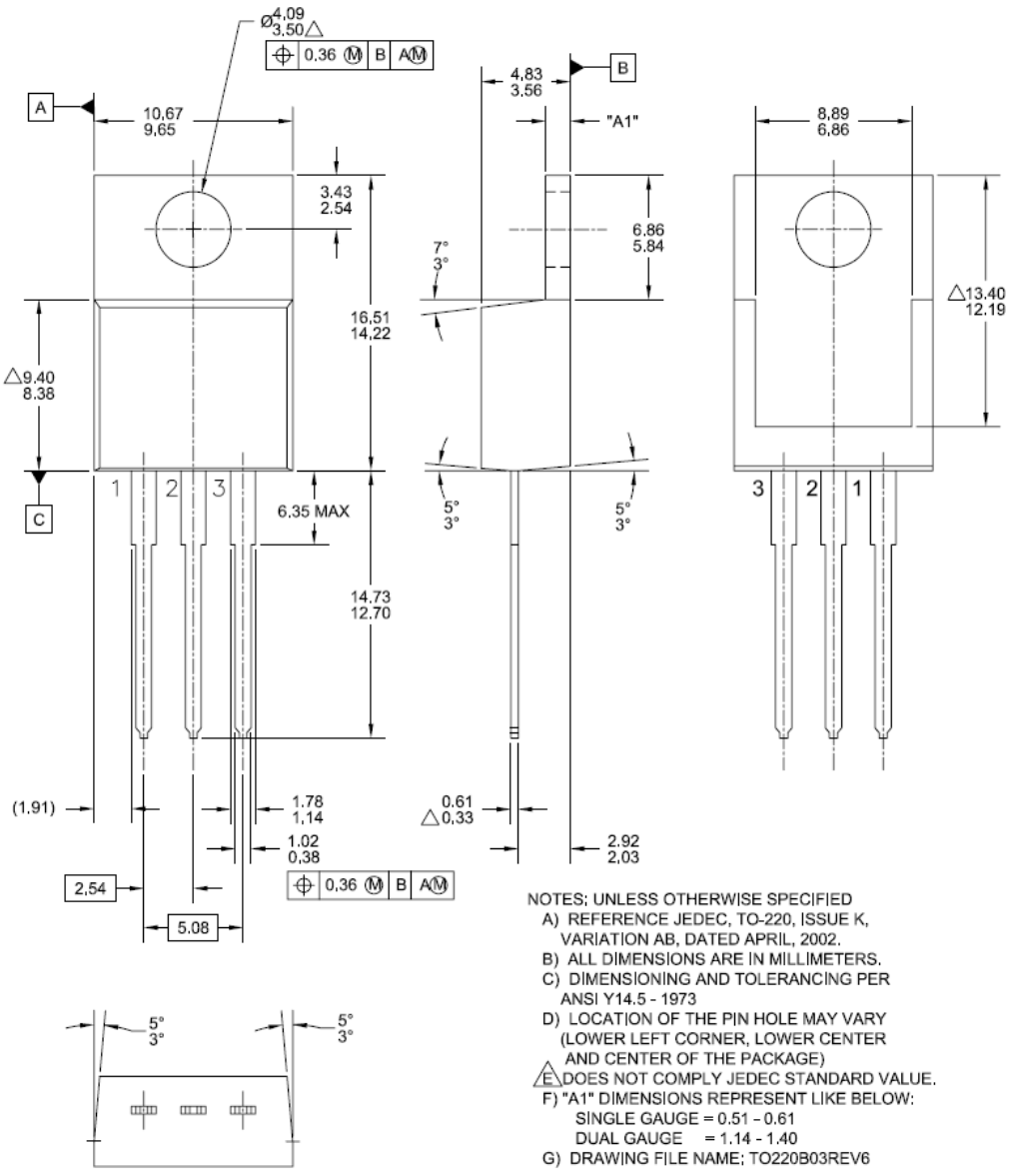


Figure 4. Power Derating



Physical Dimensions

TO-220 (DUAL GAUGE)



NOTES; UNLESS OTHERWISE SPECIFIED
A) REFERENCE JEDEC, TO-220, ISSUE K, VARIATION AB, DATED APRIL, 2002.
B) ALL DIMENSIONS ARE IN MILLIMETERS.
C) DIMENSIONING AND TOLERANCING PER ANSI Y14.5 - 1973
D) LOCATION OF THE PIN HOLE MAY VARY (LOWER LEFT CORNER, LOWER CENTER AND CENTER OF THE PACKAGE)
△E DOES NOT COMPLY JEDEC STANDARD VALUE.
F) "A1" DIMENSIONS REPRESENT LIKE BELOW:
SINGLE GAUGE = 0.51 - 0.61
DUAL GAUGE = 1.14 - 1.40
G) DRAWING FILE NAME; TO220B03REV6

Dimensions in Millimeters

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No Identification Needed	Full Production	Datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve the design.
Obsolete	Not In Production	Datasheet contains specifications on a product that is discontinued by Fairchild Semiconductor. The datasheet is for reference information only.

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