

Technical Data  
Data Sheet 3487, Rev. A

*Green Products*

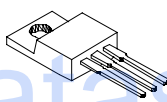
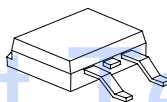
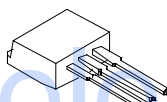
**MBR25..CT-G/MBRB25..CT-G/MBR25..CT-1-G**  
**SCHOTTKY RECTIFIER**

**Applications:**

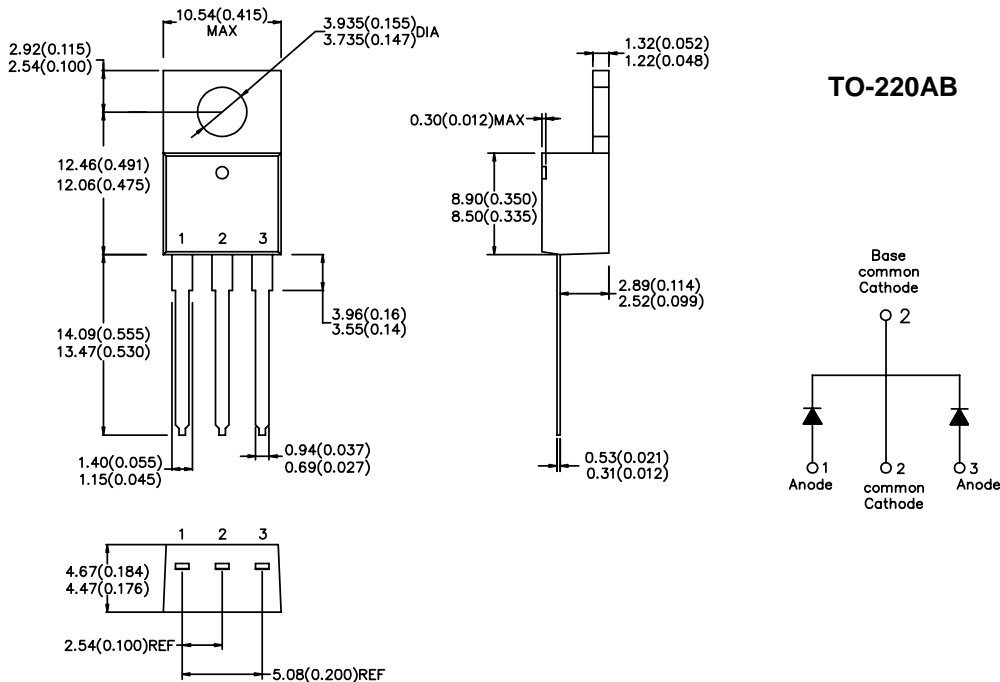
- Switching power supply • Converters • Free-Wheeling diodes • Reverse battery protection

**Features:**

- 150 °C T<sub>J</sub> operation
- Center tap configuration
- 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

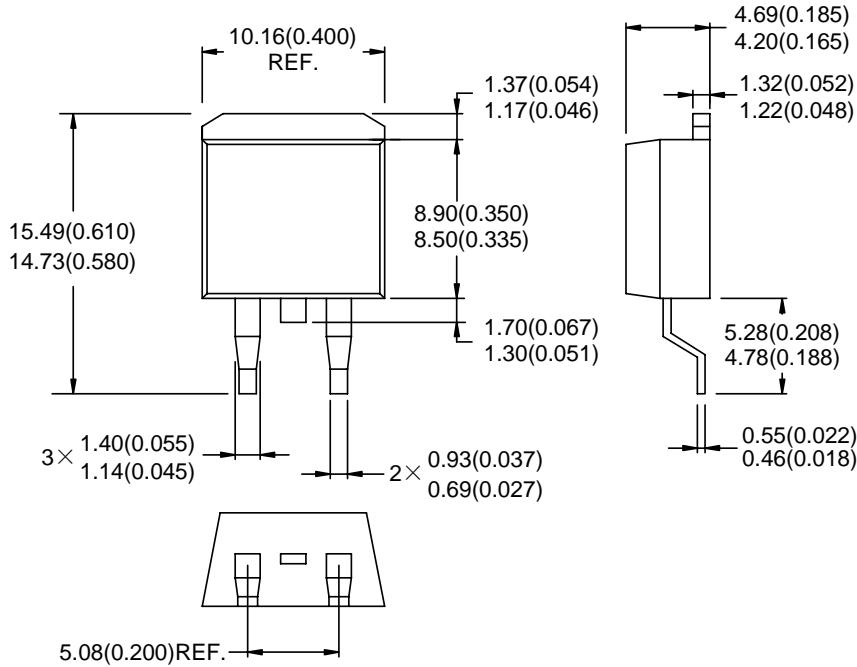
Case styles		
 <b>TO-220AB</b>	 <b>D<sup>2</sup>PAK</b>	 <b>TO-262</b>

**Mechanical Dimensions: In Inches / mm**

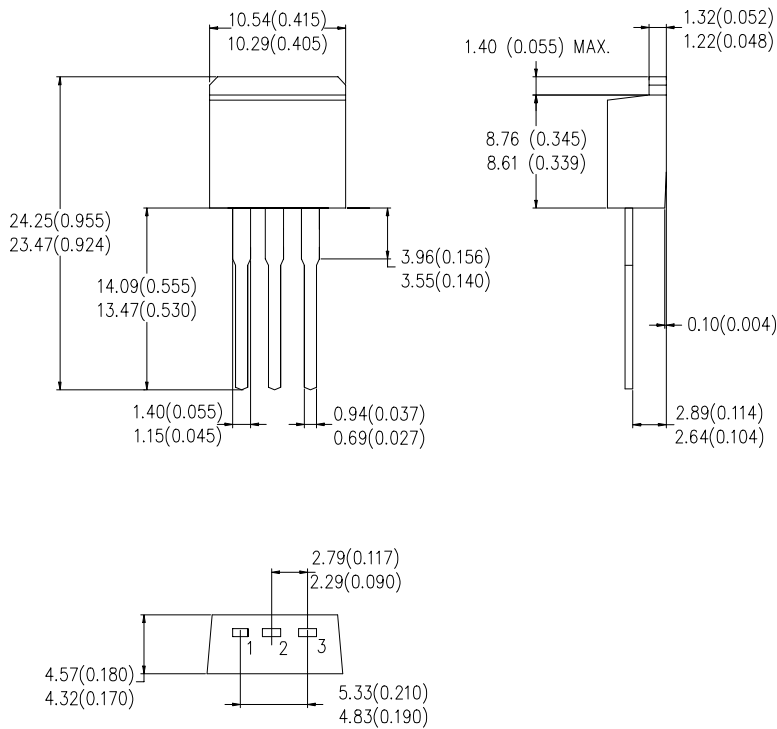
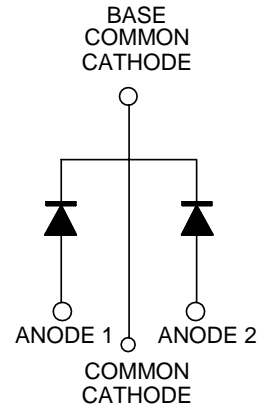


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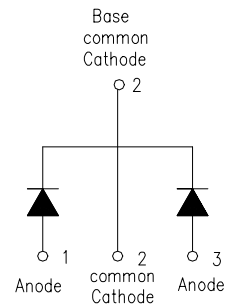
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**D<sup>2</sup>PAK**



**TO-262**



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**Maximum Ratings:**

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	$V_{RWM}$	-	35	V
			45	
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle @ $T_C = 130^\circ\text{C}$ , rectangular wave form	15(per leg)	A
			30(per device)	
Peak Repetitive Forward Current (per leg)	$I_{FRM}$	Rated $V_R$ , square wave, 20kHz, $T_C = 130^\circ\text{C}$	20	A
Max. Peak One Cycle Non-Repetitive Surge Current	$I_{FSM}$	8.3 ms, half Sine pulse	150	A
Peak Repetitive Reverse Surge Current	$I_{RRM}$	2.0 $\mu$ sec 1.0KHz	1.0	A

**Electrical Characteristics:**

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop (per leg) *	$V_{F1}$	@ 30A, Pulse, $T_J = 25^\circ\text{C}$	0.82	V
	$V_{F2}$	@ 10A, Pulse, $T_J = 125^\circ\text{C}$	0.73	V
Max. Reverse Current (per leg) *	$I_{R1}$	@ $V_R = \text{rated } V_R$ Pulse $T_J = 25^\circ\text{C}$	1.0	mA
	$I_{R2}$	@ $V_R = \text{rated } V_R$ , Pulse $T_J = 125^\circ\text{C}$	40	mA
Max. Junction Capacitance (per leg)	$C_T$	@ $V_R = 5\text{V}$ , $T_C = 25^\circ\text{C}$ $f_{SIG} = 1\text{MHz}$ $V_{SIG} = 50\text{mV}(p-p)$	700	pF
Typical Series Inductance (per leg)	$L_S$	Measured lead to lead 5 mm from package body	8.0	nH
Max. Voltage Rate of Change	dv/dt	-	10,00	V/ $\mu$ s

\* Pulse Width < 300 $\mu$ s, Duty Cycle <2%

**Thermal-Mechanical Specifications:**

Characteristics	Symbol	Condition	Specification	Units
Max. Junction Temperature	$T_J$	-	-55 to +150	$^\circ\text{C}$
Max. Storage Temperature	$T_{stg}$	-	-55 to +150	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	DC operation	2.0	$^\circ\text{C/W}$
Typical Thermal Resistance Case to Heat Sink	$R_{\theta CS}$	Mounting surface, smooth and greased (only for TO-220)	0.50	$^\circ\text{C/W}$
Approximate Weight	wt	-	2	g
Mounting Torque	$T_M$	-	6(Min.) 12(Max.)	Kg-cm
Case Style	TO-220AB D <sup>2</sup> PAK TO-262(Suffix "-1" for TO-262;"BMRB x" for D <sup>2</sup> PAK)			

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