Technical Data
Data Sheet 2915, Rev. B

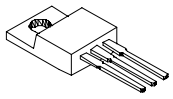
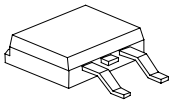
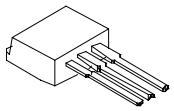
MBR20200CT/MBRB20200CT/MBR20200CT-1
SCHOTTKY RECTIFIER

Applications:

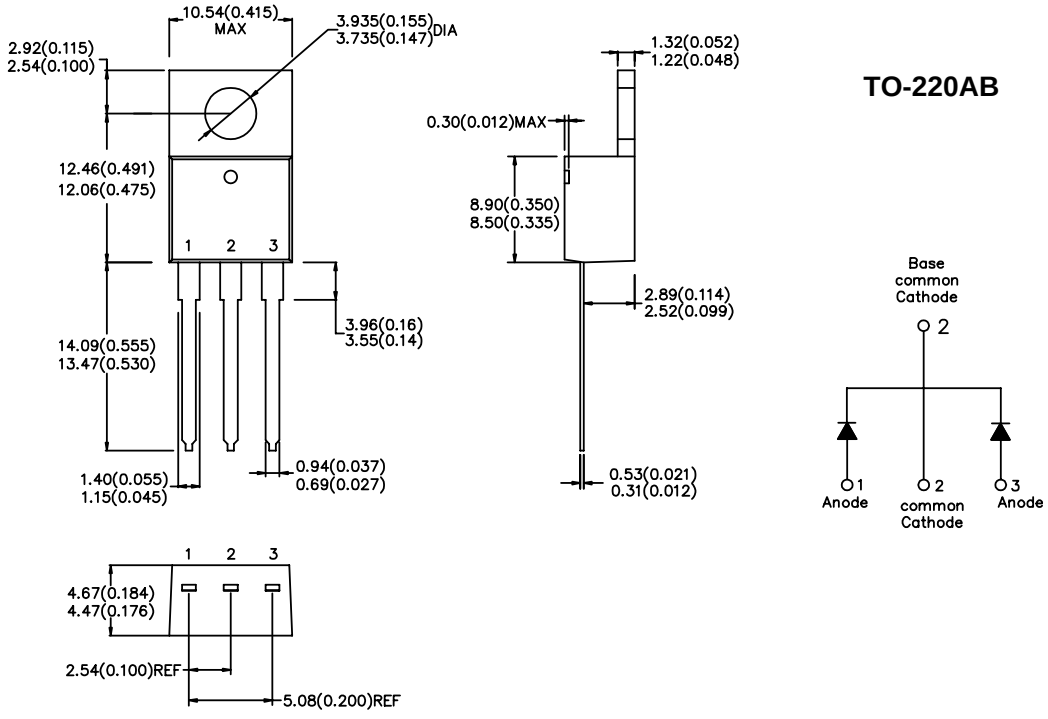
- **Switching power supply • Converters • Free-Wheeling diodes • Reverse battery protection**

Features:

- **150 °C T_J 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		
MBR20200CT	**MBRB20200CT**	**MBR20200CT-1**
		
TO-220AB	**D^2PAK**	**TO-262**

Mechanical Dimensions: In Inches / mm



TO-220AB

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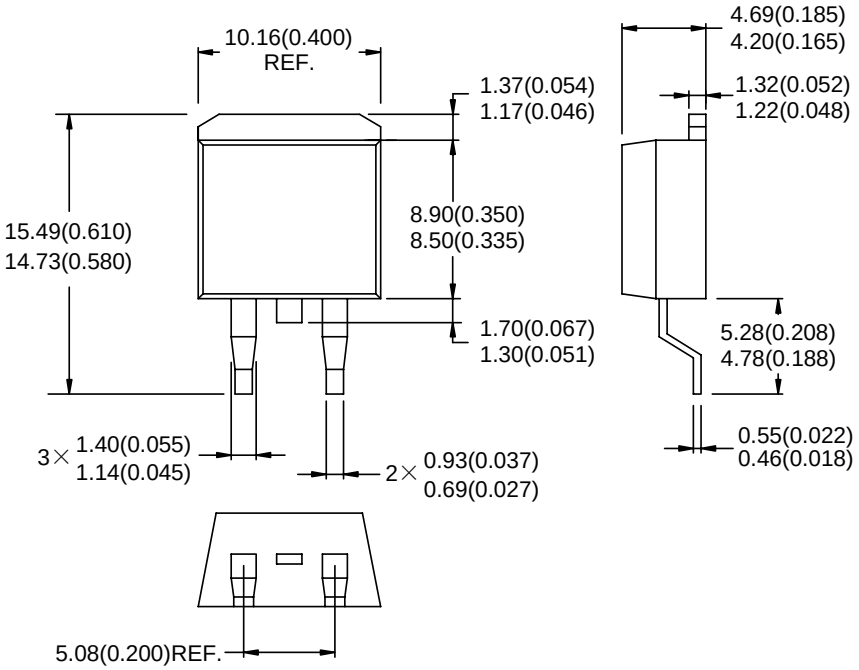
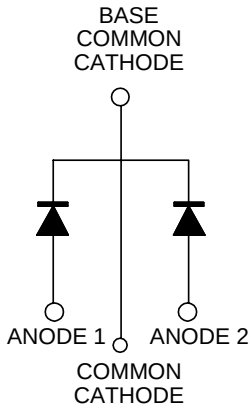
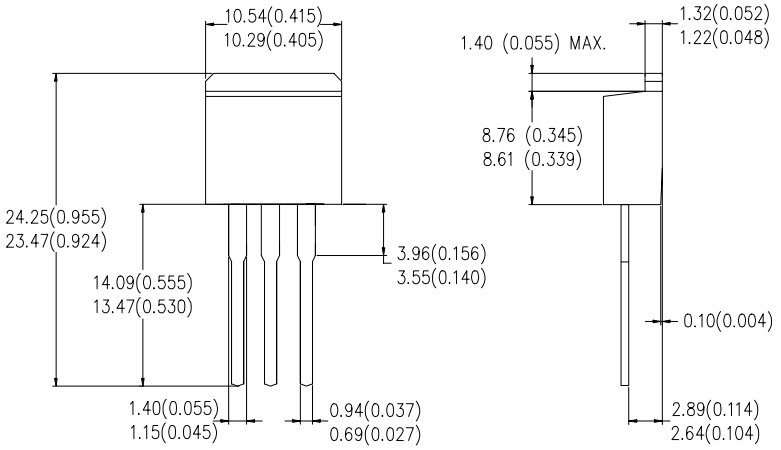
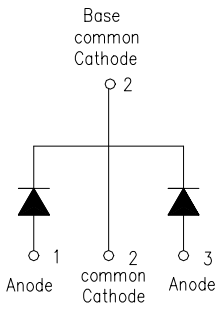
D^2PAK

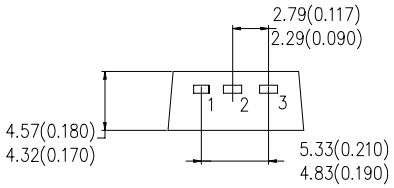




TO-262







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Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V_{RWM}	-	200	V
Max. Average Forward	$I_{F(AV)}$	50% duty cycle @T_C =125°C, rectangular wave form	10(Per leg) 20(Per device)	A
Max. Peak One Cycle Non-Repetitive Surge Current (per leg)	I_{FSM}	8.3 ms, half Sine pulse	180	A

Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop (per leg)*	V_{F1}	@ 10A, Pulse, T_J = 25 °C @ 20 A, Pulse, T_J = 25 °C	0.90 1.00	V
	V_{F2}	@ 10 A, Pulse, T_J = 125 °C @ 20 A, Pulse, T_J = 125 °C	0.80 0.90	V
Max. Reverse Current (per leg)*	I_{R1}	@V_R = rated V_R T_J = 25 °C	1.00	mA
	I_{R2}	@V_R = rated V_R T_J = 125 °C	50	mA
Max. Junction Capacitance (per leg)	C_T	@V_R = 5V, T_C = 25 °C f_{SIG} = 1MHz	500	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	-	10,000	V/µs

* Pulse Width < 300µs, Duty Cycle <2%

Thermal-Mechanical Specifications:

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

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