MBRF3035CT-G/MBRF3040CT-G/MBRF3045CT-G
SCHOTTKY RECTIFIER

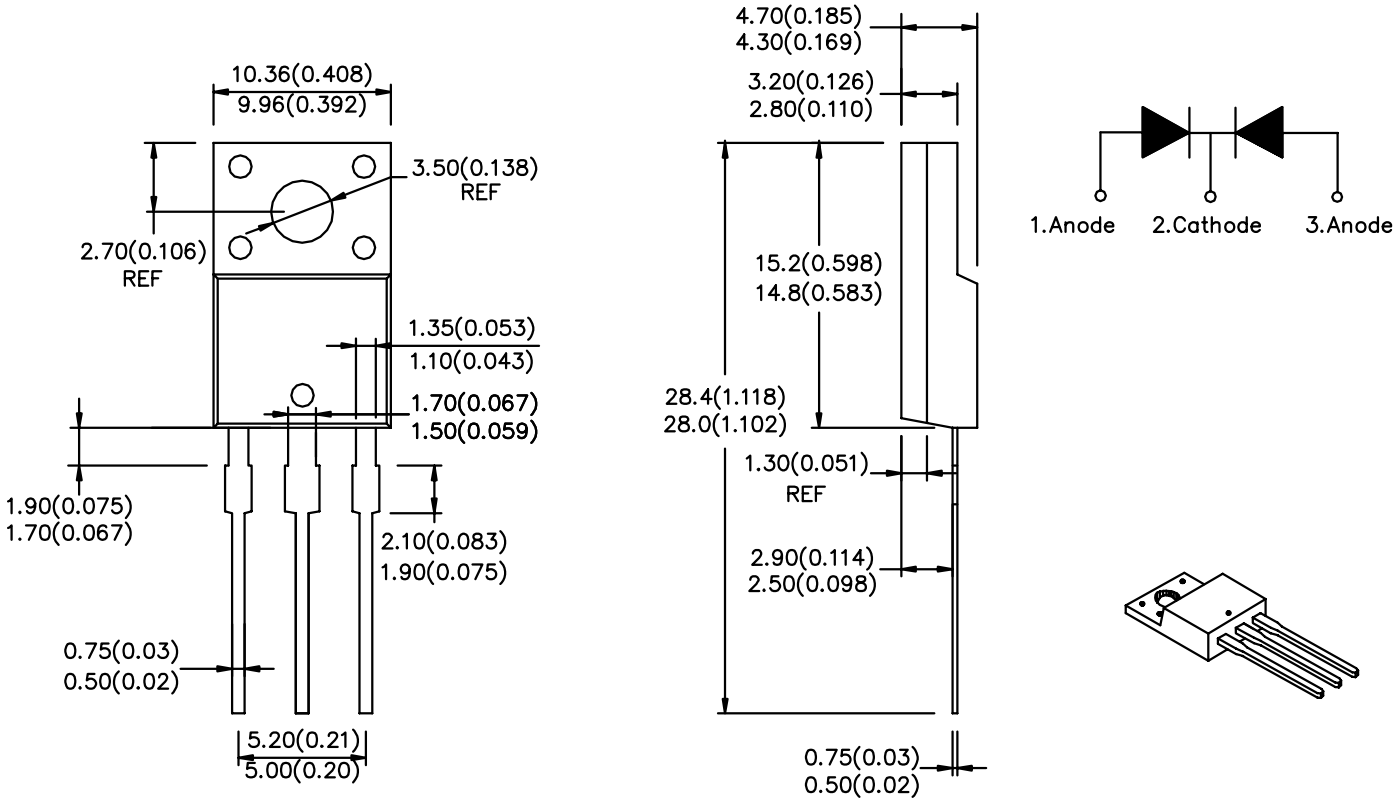
Applications:

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

Features:

- **150 ℃ 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**

Mechanical Dimensions: In Inches / mm



ITO-220AB

Maximum Ratings:

Characteristics	Symbol	Condition	Max.		Units
Peak Inverse Voltage	V_{RWM}	-	35	MBRF3035CT-G	V
			40	MBRF3040CT-G	
			45	MBRF3045CT-G	
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle @T_C =123 °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 =123 °C	30		A
Max. Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3 ms, half Sine pulse	240		A
Peak Repetitive Reverse Current	I_{RRM}	2.0µsec 1.0KHz	1.0		A

Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop (per leg) *	V_{F1}	@ 30 A, Pulse, T_J = 25 °C	0.84	V
	V_{F2}	@ 15 A, Pulse, T_J = 125 °C @ 30 A, Pulse, T_J = 125 °C	0.57 0.72	V
Max. Reverse Current (per leg) *	I_{R1}	@V_R = rated V_R T_C = 25 °C	1.0	mA
	I_{R2}	@V_R = rated V_R T_C = 125 °C	40	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	2.4	°C/W
Approximate Weight	wt	-	2	g
Mounting Torque	T_M	-	6(Min.) 12(Max.)	Kg-cm
Case Style	ITO-220AB			

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Technical Data
Data Sheet M2684, Rev. -

Green Products