

MBRF10150CT-G SCHOTTKY RECTIFIER

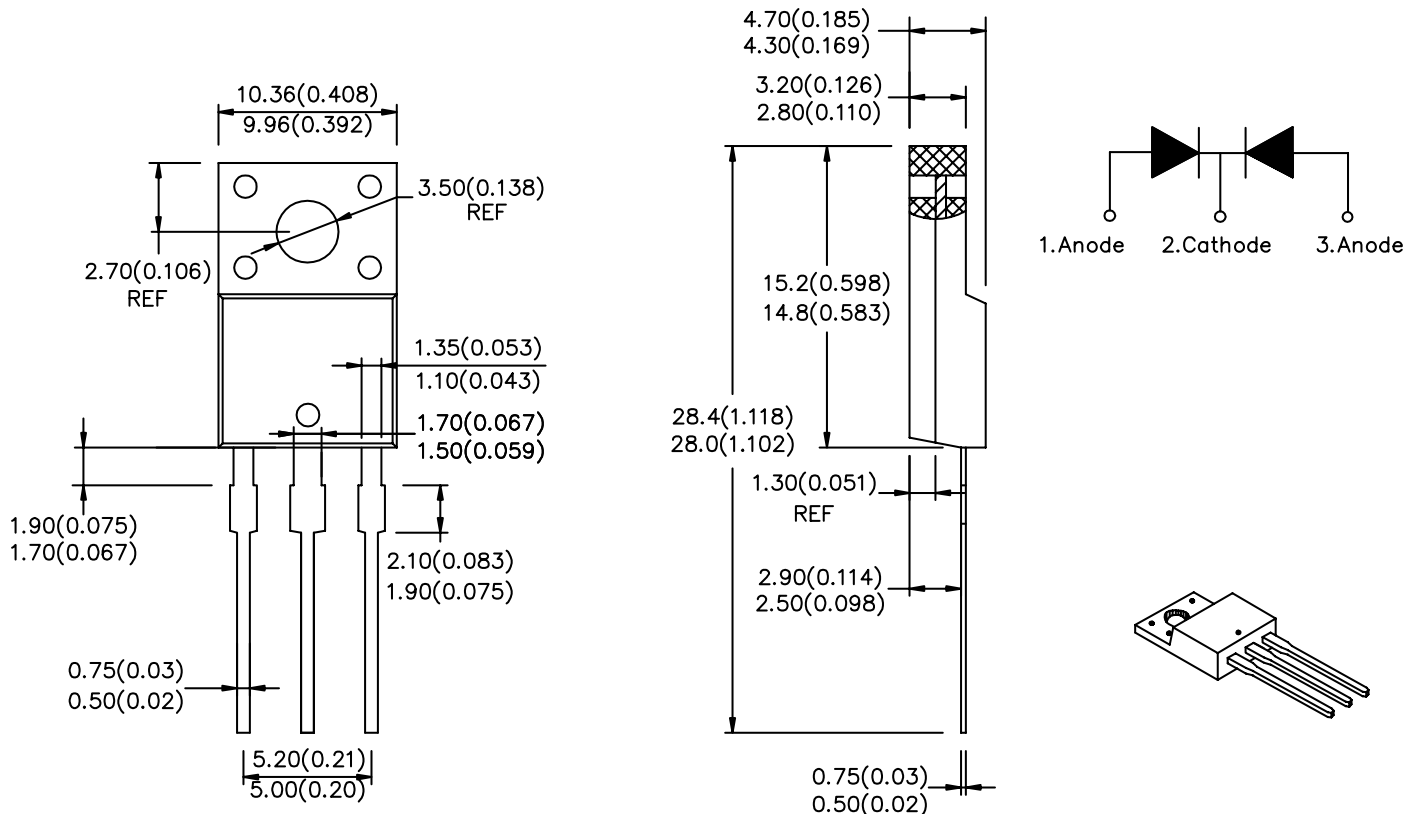
Applications:

- 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

Mechanical Dimensions: In Inches / mm



ITO-220AB

Technical Data
Data Sheet M2665, Rev. -

Green Products

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V_{RWM}	-	150	V
Max. Average Forward	$I_{F(AV)}$	50% duty cycle @ $T_C=145^{\circ}C$, rectangular wave form	10	A
Max. Peak One Cycle Non-Repetitive Surge Current (per leg)	I_{FSM}	8.3 ms, half Sine pulse	138	A

Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop (per leg) *	V_{F1}	@ 5A, Pulse, $T_J = 25^{\circ}C$ @10A, Pulse, $T_J = 25^{\circ}C$	0.93 1.10	V
	V_{F2}	@ 5A, Pulse, $T_J = 125^{\circ}C$ @10A, Pulse, $T_J = 125^{\circ}C$	0.73 0.86	V
Max. Reverse Current at DC condition (per leg)	I_{R1}	@ $V_R = \text{rated } V_R$ $T_J = 25^{\circ}C$	1	mA
Max. Reverse Current (per leg) *	I_{R2}	@ $V_R = \text{rated } V_R$ $T_J = 125^{\circ}C$	7	mA
Max. Junction Capacitance (per leg)	C_T	@ $V_R = 5V$, $T_C = 25^{\circ}C$ $f_{SIG} = 1MHz$	200	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
RSM Isolation Voltage (t = 1.0 second, R. H. <=30%, $T_A = 25^{\circ}C$)	V_{ISO}	Clip mounting, the epoxy body away from the heatsink edge by more than 0.110" along the lead direction.	4500	V
		Clip mounting, the epoxy body is inside the heatsink.	3500	
		Screw mounting, the epoxy body is inside the heatsink.	1500	

* Pulse Width < 300 μs , Duty Cycle <2%

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Max. Junction Temperature	T_J	-	-55 to +150	$^{\circ}C$
Max. Storage Temperature	T_{stg}	-	-55 to +150	$^{\circ}C$
Maximum Thermal Resistance Junction to Case (per leg)	$R_{\theta JC}$	DC operation	4.5	$^{\circ}C/W$
Approximate Weight	wt	-	2	g
Mounting Torque	T_M	-	6(Min.) 12(Max.)	Kg-cm
Case Style	ITO-220AB			

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