

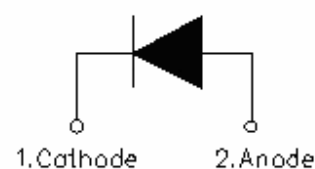
## MURF1020 ULTRAFAST PLASTIC RECTIFIER

### Applications:

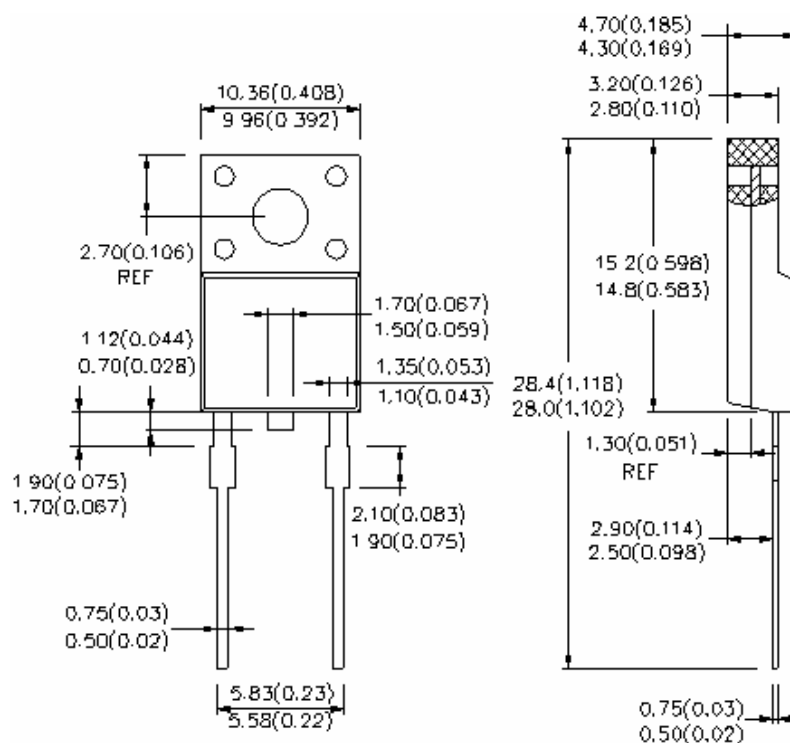
- Switching Power Supply
- Power Switching Circuits
- General Purpose

### Features:

- Ultra-Fast Switching
- High Current Capability
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-0
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

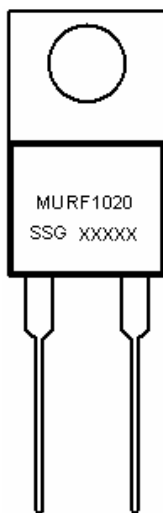


### Mechanical Dimensions: In Inches / mm



### ITO-220AC

**Marking Diagram:**



Where XXXXX is YYWWL

MUR = Device Type  
 F = Package type  
 10 = Forward Current (10A)  
 20 = Reverse Voltage (200V)  
 SSG = SSG  
 YY = Year  
 WW = Week  
 L = Lot Number

**Cautions:** Molding resin  
 Epoxy resin UL:94V-0

**Ordering Information:**

Device	Package	Shipping
MURF1020	ITO-220AC (Pb-Free)	50pcs / tube

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

**Maximum Ratings:**

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	$V_{RWM}$	-	200	V
Max. Average Forward	$I_{O(AV)}$	50% duty cycle @Tc=100°C, rectangular wave form	10	A
Max. Peak One Cycle Non-Repetitive Surge Current (Per leg)	$I_{FSM}$	50Hz, Half Sine wave	100	A



**Electrical Characteristics:**

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop (Per leg)*	$V_F$	@ $I_F=10A$ , Pulse, $T_J = 25^\circ C$	1.2	V
	$V_F$	@ $I_F=10A$ , Pulse, $T_J = 125^\circ C$	1.0	V
Max. Reverse Current (Per leg)*	$I_{R1}$	@ $V_R = \text{rated } V_R$ $T_J = 25^\circ C$	10	$\mu A$
	$I_{R2}$	@ $V_R = \text{rated } V_R$ $T_J = 125^\circ C$	1.0	mA
Max. Reverse Recovery Time (Per leg)*	$t_{rr}$	$I_F=500mA$ , $I_R=1A$ , and $I_{rm}=250mA$	35	ns
RSM Isolation Voltage ( $t=1.0$ second, R.H.<=30%, $T_A=25^\circ C$ )	$V_{iso}$	Clip mouting, the epoxy body away from the heatsink edge by more than 0.110" along the lead direction.	4500	V
		Clip mouting, the epoxy body is inside the heatsink	3500	
		Screw mounting, the epoxy body is inside the heatsink	1500	

\* Pulse width < 300  $\mu s$ , duty cycle < 2%

**Thermal-Mechanical Specifications:**

Characteristics	Symbol	Condition	Specification	Units
Max. Junction Temperature	$T_J$	-	-55 to +175	$^\circ C$
Max. Storage Temperature	$T_{stg}$	-	-55 to +175	$^\circ C$
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	DC operation	2	$^\circ C / W$
Approximate Weight	wt	-	1.6	g
Case Style	ITO-220AC			



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