



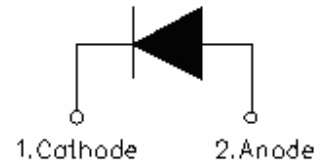
SURF860 ULTRAFAST PLASTIC RECTIFIER

Applications:

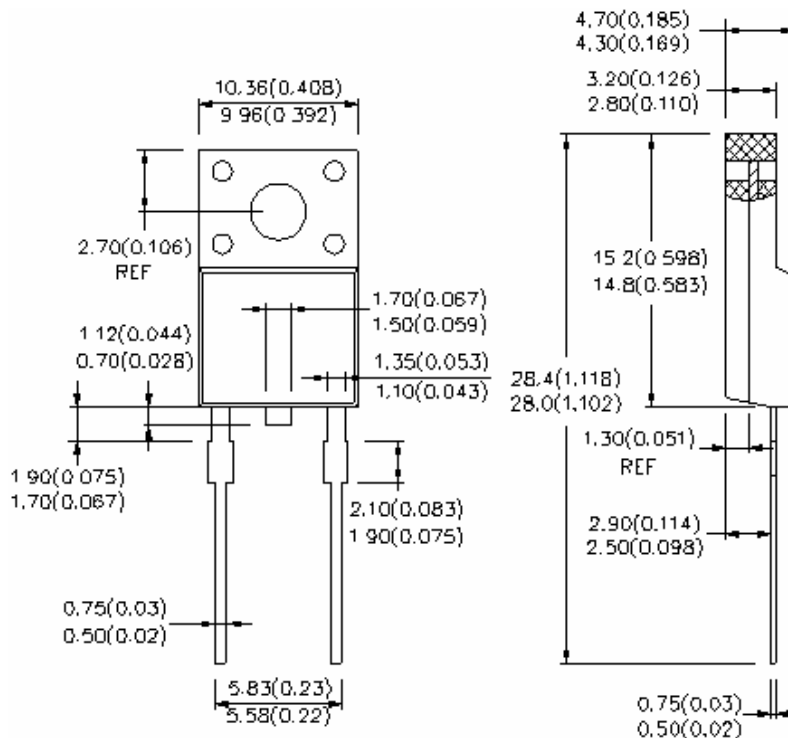
- Switching Power Supply
- Power Switching Circuits
- General Purpose

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

SUR = Device Type
 F = Package type
 8 = Forward Current (8A)
 60 = Reverse Voltage (600V)
 SSG = SSG
 YY = Year
 WW = Week
 L = Lot Number

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

Ordering Information:

Device	Package	Shipping
SURF860	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}	-	600	V
Max. Average Forward	$I_{O(AV)}$	50% duty cycle @Tc=90°C, rectangular wave form	8	A
Max. Peak One Cycle Non-Repetitive Surge Current (Per leg)	I_{FSM}	50Hz, Half Sine wave	80	A



Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop*	V_F	@ $I_F=8A$, Pulse, $T_J = 25^\circ C$	2.2	V
Max. Reverse Current (Per leg)*	I_{R1}	@ $V_R = \text{rated } V_R$ $T_J = 25^\circ C$	2	μA
	I_{R2}	@ $V_R = \text{rated } V_R$ $T_J = 150^\circ C$	500	μA
Max. Reverse Recovery Time (Per leg)*	t_{rr}	$I_F=500mA$, $I_R=1A$, and $I_{rm}=250mA$	50	ns

* 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	$R_{\theta JC}$	DC operation	3	$^\circ C/W$
Approximate Weight	wt	-	1.6	g
Case Style	ITO-220AC			

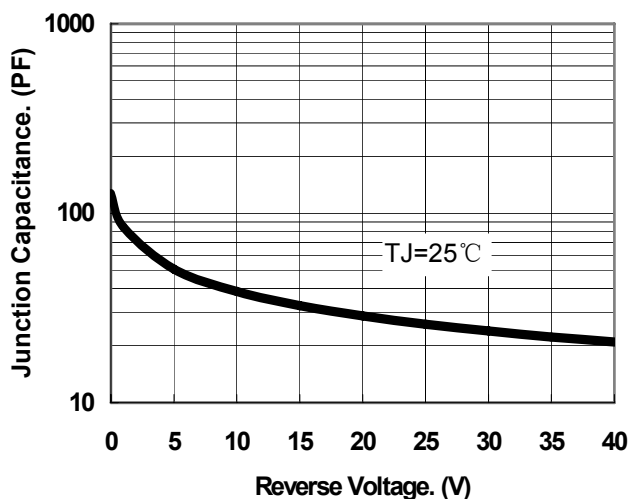


Fig.1-Typical Junction Capacitance

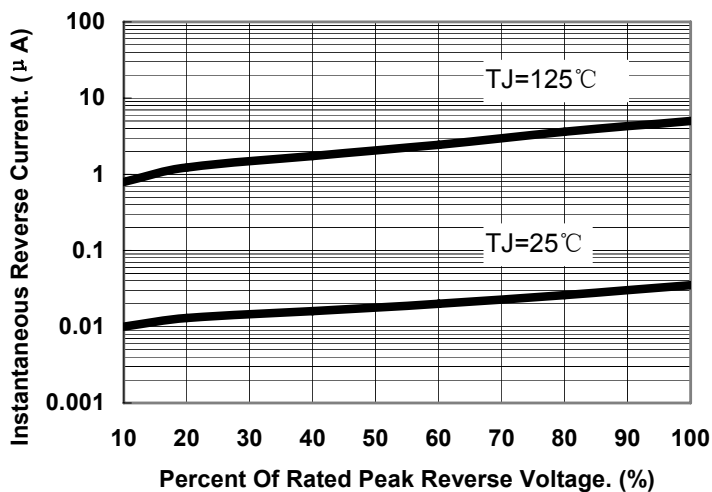


Fig.2-Typical Reverse Characteristics

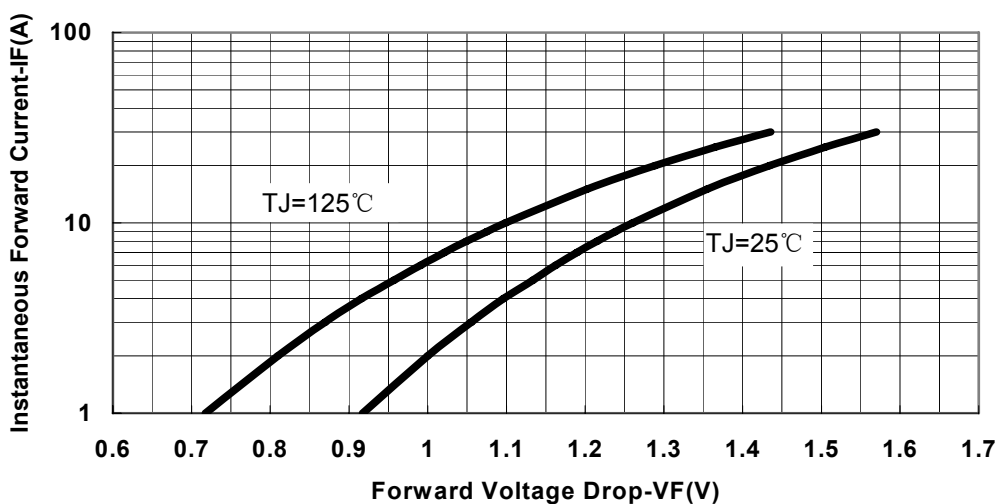


Fig.3-Typical Forward Voltage Drop Characteristics



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