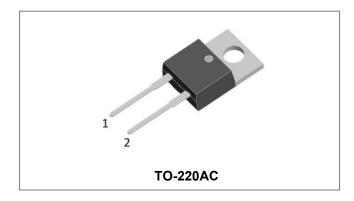


RoHS



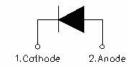
SUR1060 ULTRAFAST RECTIFIER



Features

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

Circuit Diagram



Applications

- Switching Power Supply
- Power Switching Circuits
- General Purpose

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	-	600	V
Average Rectified Forward Current	I _{F (AV)}	50% duty cycle @T _C =100°C, rectangular wave form	10	Α
Peak One Cycle Non-Repetitive Surge Current	I _{FSM}	8.3ms, Half Sine pulse	110	А

Electrical Characteristics:

Characteristics	Symbol	Condition	Тур.	Max.	Units
Forward Voltage Drop*	V_{F1}	@ 10A, Pulse, T _J = 25°C	1.18	2.2	V
	V _{F2}	@ 10A, Pulse, T _J = 100°C	-	2.0	V
Reverse Current*	I _{R1}	$@V_R = \text{rated } V_R$ $T_J = 25^{\circ}C$	0.3	5	μA
	I _{R2}	$@V_R = \text{rated } V_R$ $T_J = 100^{\circ}\text{C}$	-	50	μA
Reverse Recovery Time	t _{rr}	I _F =500mA, I _R =1A,and I _m =250mA	43	50	ns

^{*} Pulse width < 300 μs, duty cycle < 2%







Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	TJ	-	-55 to +150	°C
Storage Temperature	T _{stg}	-	-55 to +150	°C
Typical Thermal Resistance Junction to Case	R _θ Jc	DC operation	4	°C/W
Approximate Weight	wt	-	1.6	g
Case Style	TO-220AC			

Ratings and Characteristics Curves

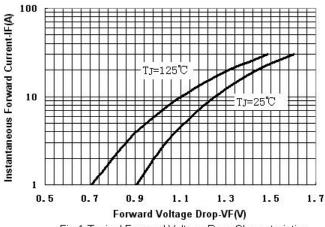


Fig.1-Typical Forward Voltage Drop Characteristics

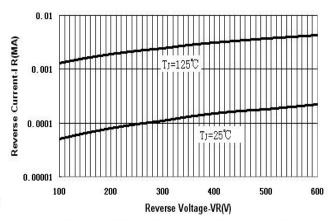


Fig.2-Typical Values of Reverse Current Vs. Reverse Voltage

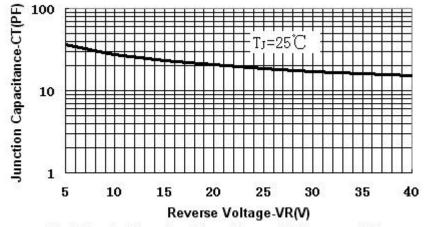


Fig.3-Typical Junction Capacitance Vs.Reverse Voltage

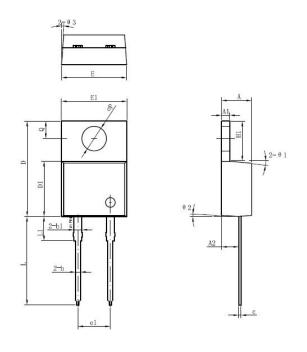
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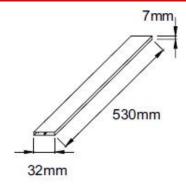


Mechanical Dimensions TO-220AC

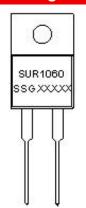


Symbol	Dimensions in millimeters			
_	Min.	Typical	Max.	
Α	4.47	4.70	4.85	
A1	1.17	1.27	1.37	
A2	2.52	2.69	2.89	
b	0.71	0.81	0.96	
b1	1.17	1.27	1.37	
С	0.31	0.38	0.61	
D	14.64	14.94	15.24	
D1	8.50	8.07	8.90	
E	10.01	10.16	10.31	
E1	9.98	10.18	10.38	
e1	4.98	5.08	5.18	
H1	6.04	6.24	6.44	
L	13.00	13.86	14.08	
L1	3.56	3.80	3.96	
ФР	3.74	3.84	4.04	
Q	2.54	2.74	2.94	
Θ1		5°		
Θ2		4°		
Θ3		4°		

Tube Specification



Marking Diagram



Where XXXXX is YYWWL

SUR = Device Type 10 = Forward Current (10A) 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	
SUR1060	TO-220AC (Pb-Free)	50 pcs/ tube	

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

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