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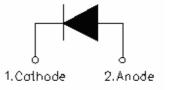
# SDUR60120W ULTRAFAST PLASTIC RECTIFIER

## **Applications:**

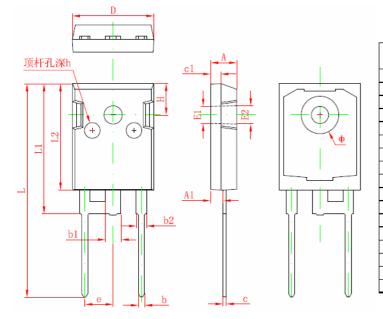
- Antiparallel diode for high frequency switching devices
- Anti saturation diode
- Snubber diode
- Free wheeling diode in converters and motor control circuits
- Rectifiers in switch mode power supplies (SMPS)
- Inductive heating and melting
- **Uninterruptible power supplies (UPS)**
- Ultrasonic cleaners and welders

#### 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



## **Mechanical Dimensions: In mm / Inches**



0	Dimensions In Millimeters		Dimensions In Inches		
Symbol	Min	Max	Min	Max	
А	4.850	5.150	0.191	0.200	
A1	2.200	2.600	0.087	0.102	
b	1.000	1.400	0.039	0.055	
b1	2.800	3.200	0.110	0.126	
b2	1.800	2.200	0.071	0.087	
С	0.500	0.700	0.020	0.028	
c1	1.900	2.100	0.075	0.083	
D	15.450	15.750	0.608	0.620	
E1	3.500 REF		0.138 REF		
E2	3.600 REF		0.142 REF		
L	40.900	41.300	1.610	1.626	
L1	24.800	25.100	0.976	0.988	
L2	20.300	20.600	0.799	0.811	
Ф	7.100	7.300	0.280	0.287	
е	5.450 TYP		0.215 TYP		
Н	5.980 REF		0.235 REF		
h	0.000	0.300	0.000	0.012	

### **TO-247AC**

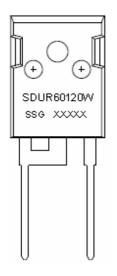
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<sup>•</sup> FAX (86) 25-87123900 • World Wide Web Site - http://www.sangdest.com.cn • E-Mail Address - sales@ sangdest.com.cn •



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## **Marking Diagram:**



Where XXXXX is YYWWL

SDUR = Device Type

60 = Forward Current (60A) 120 = Reverse Voltage (1200V)

W = Configuration

SSG = SSG YY = Year WW = Week L = Lot Number

Cautions: Molding resin

Epoxy resin UL:94V-0

# **Ordering Information:**

Device	Package	Shipping
SDUR60120W	TO-247AC (Pb-Free)	30 pcs / 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	$V_{RWM}$	-	1200	V
Average Rectified Forward Current	I <sub>F (AV)</sub>	rectangular, d = 0.5,@Tc=90℃	60	Α
Peak One Cycle Non- Repetitive Surge Current	I <sub>FSM</sub>	$T_J = 45$ °C; tp = 10 ms (50 Hz), sine	500	А

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## **Electrical Characteristics:**

Characteristics	Symbol	Condition	Max.	Units
Forward Voltage Drop*	$V_{F1}$	@ 60A, Pulse, T <sub>J</sub> = 25°C	2.66	V
	$V_{F2}$	@ 60A, Pulse, T <sub>J</sub> = 150°C	1.74	V
Reverse Current*	I <sub>R1</sub>	$@V_R = \text{rated } V_R$ $T_J = 25^{\circ}C$	650	uA
	I <sub>R1</sub>	$@V_R = \text{rated } V_R$ $T_J = 150$ °C	2.5	mA
Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> =500mA,I <sub>R</sub> =1A,and I <sub>rm</sub> =250mA	50	ns

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

# **Thermal-Mechanical Specifications:**

Characteristics	<b>Symbol</b>	Condition	Specification	Units
Max. Junction Temperature	$T_J$	-	-55 to +175	°C
Max. Storage Temperature	T <sub>stg</sub>	-	-55 to +150	°C
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	DC operation	0.65	K/W
Approximate Weight	wt	-	6.7	g
Case Style		TO-247AC		•

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