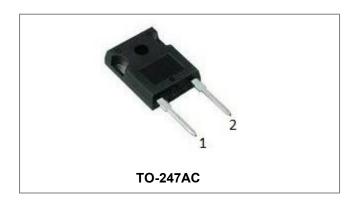


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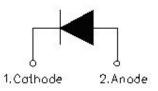
SDUR6040W ULTRAFAST RECTIFIER



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

Circuit Diagram



Features

- Ultra-Fast switching
- High current capability
- Low reverse leakage current
- High surge current capability
- Terminals finish: 100% Pure Tin
- This is a Pb free device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Maximum Ratings:

Characteristics	Symbol	Condition Max.		Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	-	400	V
Average Rectified Forward Current	I _{F (AV)}	50% duty cycle @Tc=105°C, rectangular wave form	60	Α
Peak One Cycle Non-Repetitive Surge Current	I _{FSM}	8.3ms, Half Sine pulse	450	А

Electrical Characteristics:

Characteristics	Symbol	Condition	Тур.	Max.	Units
Forward Voltage Drop*	V _{F1}	@ 60A, Pulse, T _J = 25°C	-	1.47	V
	V _{F2}	@ 60A, Pulse, T _J = 150°C	-	1.22	V
Reverse Current*	I _{R1}	$@V_R = \text{rated } V_R$ $T_J = 25^{\circ}C$	-	10	μΑ
	I _{R2}	$@V_R = \text{ rated } V_R$ $T_J = 125^{\circ}\text{C}$	-	300	uA
Reverse Recovery Time	t _{rr}	I _F =500mA, I _R =1A,and I _m =250mA -		45	ns

 $^{^*}$ Pulse width < 300 μ s, duty cycle < 2%

- China Germany Korea Singapore United States
 - http://www.smc-diodes.com
 sales@ smc-diodes.com



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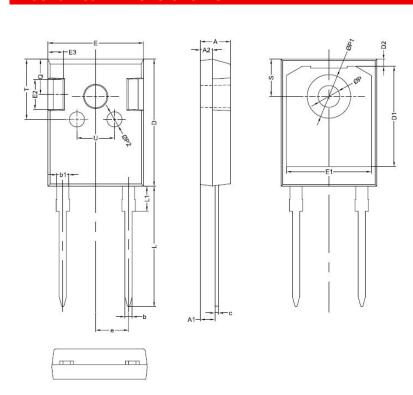




Thermal-Mechanical Specifications:

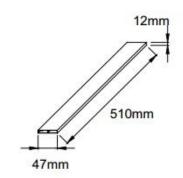
Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	TJ	-	-55 to +150	°C
Storage Temperature	T _{stg}	-	-55 to +150	°C
Typical Thermal Resistance Junction to Case	$R_{ heta JC}$	DC operation	0.95	°C/W
Approximate Weight	wt	-	6.28	g
Case Style	TO-247AC			

Mechanical Dimensions TO-247AC



CVMDOL	Millimeters				
SYMBOL	MIN.	TYP.	MAX.		
Α	4.80	5.00	5.20		
A1	2.20	2.41	2.61		
A2	1.90	2.00	2.10		
b	1.10	1.20	1.35		
b1	1.80	2.00	2.20		
С	0.50	0.60	0.75		
D	20.30	21.00	21.20		
D1		16.58			
D2		1.17			
Е	15.60	15.80	16.00		
E1		14.02			
E2		5.00			
E3		2.50			
е		5.44			
Ш	19.42	19.92	20.42		
L1		4.13			
Р	3.50	3.60	3.70		
P1	7.1	7.19	7.40		
P2		2.50			
Q		5.80			
S	6.05	6.15	6.25		
T		10.00			
U		6.20			

Tube Specification



Marking Diagram



Where XXXXX is YYWWL

SDUR = Device Type 60 = Forward Current (60A) 40 = Reverse Voltage (400V) W = Configuration

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

Cautions: Molding resin

Epoxy resin UL:94V-0

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Ordering Information

Device	Package	Shipping	
SDUR6040W	TO-247AC(Pb-Free)	25pcs / tube	

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

DISCLAIMER:

- 1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the SMC Diode Solutions sales department for the latest version of the datasheet(s).
- 2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.
- 3- In no event shall SMC Diode Solutions be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). SMC Diode Solution assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.
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