

Technical Data Data Sheet N0390, Rev. - **Green Products** 

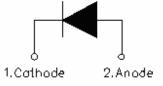
# SDUR60100W ULTRAFAST PLASTIC RECTIFIER

### **Applications:**

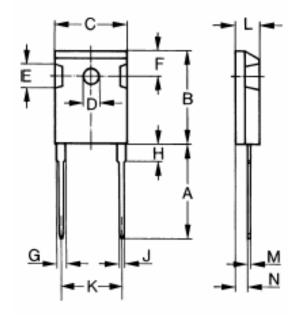
- Antiparallel diode for high frequency switching devices
- Anti saturation diode
- Snubber diode
- Free wheeling diode in converters and motor control circuits
- Rectifiers in switch mode power supplies (SMPS)
- · Inductive heating and melting
- Uninterruptible power supplies (UPS)
- Ultrasonic cleaners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

#### Features:

- Utra-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



Dim.	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	19.81	20.32	0.780	0.800
B	20.80	21.46	0.819	0.845
C	15.75	16.26	0.610	0.640
D	3.55	3.65	0.140	0.144
E	4.32	5.49	0.170	0.216
F	5.4	6.2	0.212	0.244
G H	1.65	2.13 4.5	0.065	0.084 0.177
J	1.0	1.4	0.040	0.055
K	10.8	11.0	0.426	0.433
L	4.7	5.3	0.185	0.209
M	0.4	0.8	0.016	0.031
N	2.2	2.54	0.087	0.102

#### **TO-247AC**

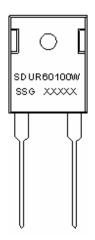
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#### **Marking Diagram:**



Where XXXXX is YYWWL

SDUR = Device Type

60 = Forward Current (60A) 100 = Reverse Voltage (1000V)

W = Configuration

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

Cautions: Molding resin

Epoxy resin UL:94V-0

# **Ordering Information:**

Device	Package	Shipping
SDUR60100W	TO-247AC	30 pcs / tube
020110010011	(Pb-Free)	00 poo / tabo

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	$V_{RWM}$	-	1000	V
Max. Average Forward	I <sub>F (AV)</sub>	50% duty cycle @Tc=60°C, rectangular wave form	60	Α
Max. Peak One Cycle Non- Repetitive Surge Current	I <sub>FSM</sub>	T <sub>J</sub> =45°C 8.3ms, Half Sine pulse	540	Α

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#### **Electrical Characteristics:**

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop*	$V_{F1}$	@ 60A, Pulse, T <sub>J</sub> = 25°C	2.3	V
	$V_{F2}$	@ 60A, Pulse, T <sub>J</sub> = 150°C	1.8	V
Max. Reverse Current*	I <sub>R1</sub>	$@V_R = \text{rated } V_R$ $T_J = 25^{\circ}C$	500	μА
	I <sub>R2</sub>	$@V_R = \text{rated } V_R$ $T_J = 125^{\circ}C$	14000	μA
Max. Reverse Recovery Time	t <sub>rr</sub>	$I_F$ =1A, -di/dt=200A/us, $V_R$ =30V, and $T_J$ = 25°C	35	ns

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

# **Thermal-Mechanical Specifications:**

Characteristics	Symbol	Condition	Specification	Units
Max. Junction Temperature	$T_J$	-	-40 to +150	°C
Max. Storage Temperature	T <sub>stg</sub>	-	-40 to +150	°C
Maximum Thermal Resistance Junction to Case	$R_{thJC}$	DC operation	0.9	K/W
Approximate Weight	wt	-	6.0	g
Case Style		TO-247AC		



#### **SDUR60100W**

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