

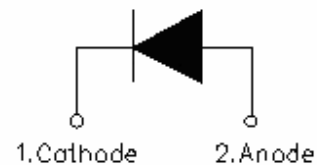
## SDUR6030W ULTRAFAST PLASTIC RECTIFIER

### Applications:

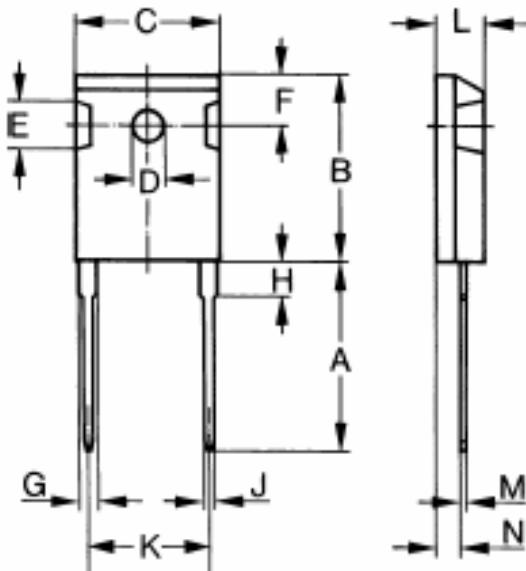
- Antiparallel diode for high frequency switching devices
- Anti saturation diode
- Snubber diode
- Free wheeling diode in converters and motor control circuits
- Rectifiers in switch mode power supplies (SMPS)
- Inductive heating and melting
- Uninterruptible power supplies (UPS)
- Ultrasonic cleaners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

### Features:

- Ultra-Fast Switching
- High Current Capability
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-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 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    | 1.65       | 2.13  | 0.065  | 0.084 |
| H    | -          | 4.5   | -      | 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 |

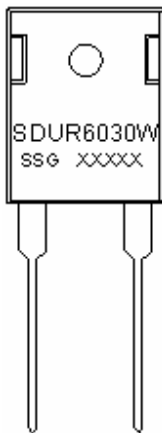
### TO-247AC



Technical Data  
Data Sheet N1270, Rev. -

**Green Products**

**Marking Diagram:**



Where XXXXX is YYWWL

SDUR = Device Type  
60 = Forward Current (60A)  
30 = Reverse Voltage (300V)  
W = Configuration  
SSG = SSG  
YY = Year  
WW = Week  
L = Lot Number

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

**Ordering Information:**

| Device    | Package               | Shipping      |
|-----------|-----------------------|---------------|
| SDUR6030W | TO-247AC<br>(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                                       | $V_{RWM}$   | -                                 | 300  | V     |
| Average Rectified Forward Current                          | $I_{F(AV)}$ | Rated $V_r$ , @ $T_c=105^\circ C$ | 60   | A     |
| Max. Peak One Cycle Non-Repetitive Surge Current (Per leg) | $I_{FSM}$   | 8.3ms, Half Sine pulse            | 450  | A     |



**Electrical Characteristics:**

| Characteristics            | Symbol          | Condition   | Max. | Units |
|----------------------------|-----------------|---|------|-------|
| Max. Forward Voltage Drop* | V <sub>F1</sub> | @ 60A, Pulse, T <sub>J</sub> = 25°C                                   | 1.40 | V     |
|                            | V <sub>F2</sub> | @ 60A, Pulse, T <sub>J</sub> = 150°C                                  | 1.10 | V     |
| Max. Reverse Current*      | I <sub>R1</sub> | @V <sub>R</sub> = rated V <sub>R</sub><br>T <sub>J</sub> = 25°C       | 10   | μA    |
|                            | I <sub>R2</sub> | @V <sub>R</sub> = rated V <sub>R</sub><br>T <sub>J</sub> = 125°C      | 350  | uA    |
| Max. Reverse Recovery Time | t <sub>rr</sub> | I <sub>F</sub> =500mA, I <sub>R</sub> =1A, and I <sub>rm</sub> =250mA | 45   | ns    |

\* Pulse width < 300 μs, duty cycle < 2%

**Thermal-Mechanical Specifications:**

| Characteristics                             | Symbol           | Condition    | Specification | Units |
|---|------------------|--------------|---------------|-------|
| Max. Junction Temperature                   | T <sub>J</sub>   | -            | -55 to +150   | °C    |
| Max. Storage Temperature                    | T <sub>stg</sub> | -            | -55 to +150   | °C    |
| Maximum Thermal Resistance Junction to Case | R <sub>θJC</sub> | DC operation | 4             | °C/W  |
| Approximate Weight                          | wt               | -            | 6.7           | g     |
| Case Style                                  | TO-247AC         |              |               |       |

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