

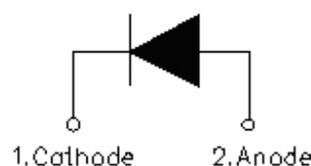
SDUR6020W ULTRAFAST PLASTIC RECTIFIER

Applications:

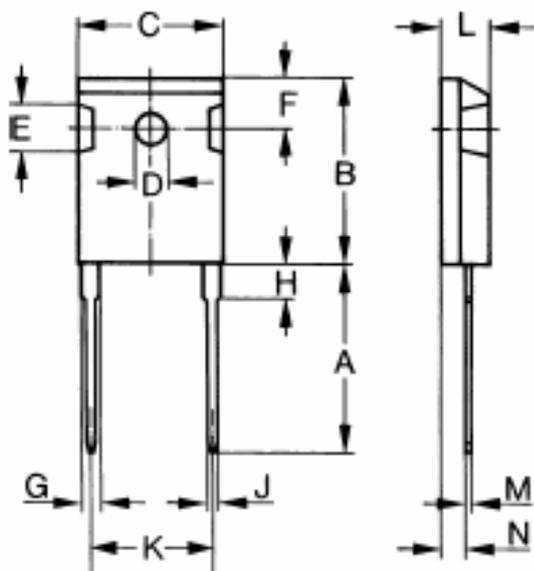
- Antiparallel diode for high frequency switching devices
- Anti saturation diode
- Snubber diode
- Free wheeling diode in converters and motor control circuits
- Rectifiers in switch mode power supplies (SMPS)
- Inductive heating and melting
- Uninterruptible power supplies (UPS)
- Ultrasonic cleaners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



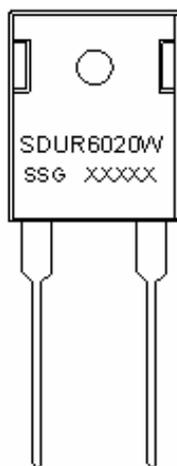
Mechanical Dimensions: In mm / Inches



| 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

Marking Diagram:



Where XXXXX is YYWWL

SDUR = Device Type
60 = Forward Current (60A)
20 = Reverse Voltage (200V)
W = Configuration
SSG = SSG
YY = Year
WW = Week
L = Lot Number

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

Ordering Information:

| Device | Package | Shipping |
|-----------|-----------------------|---------------|
| SDUR6020W | 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} | - | 200 | V |
| Average Rectified Forward Current | $I_{F(AV)}$ | rectangular, $d = 0.5, @T_c=85^\circ\text{C}$ | 60 | A |
| Max. Peak One Cycle Non-Repetitive Surge Current | I_{FSM} | 8.3ms, Half Sine pulse | 650 | A |

Electrical Characteristics:

| Characteristics | Symbol | Condition | Max. | Units |
|----------------------------|----------|---------------------------------------------------------------------------|-------|---------------|
| Max. Forward Voltage Drop* | V_{F1} | @ 60A, Pulse, $T_J = 25^\circ\text{C}$ | 1.08 | V |
| Max. Reverse Current* | I_{R1} | @ $V_R = \text{rated } V_R$ $T_J = 25^\circ\text{C}$ | 40 | μA |
| | I_{R1} | @ $V_R = \text{rated } V_R$ $T_J = 125^\circ\text{C}$ | 11000 | μA |
| Max. Reverse Recovery Time | t_{rr} | $I_F = 500\text{mA}, I_R = 1\text{A}, \text{ and } I_{rm} = 250\text{mA}$ | 50 | ns |

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

Thermal-Mechanical Specifications:

| Characteristics | Symbol | Condition | Specification | Units |
|---------------------------------------------|-----------------|--------------|---------------|------------------|
| Max. Junction Temperature | T_J | - | -55 to +150 | $^\circ\text{C}$ |
| Max. Storage Temperature | T_{stg} | - | -55 to +150 | $^\circ\text{C}$ |
| Maximum Thermal Resistance Junction to Case | $R_{\theta JC}$ | DC operation | 0.75 | K/W |
| Approximate Weight | wt | - | 6.7 | g |
| Case Style | TO-247AC | | | |

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