

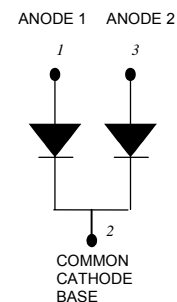
## MUR2030WT ULTRAFAST PLASTIC RECTIFIER

### Applications:

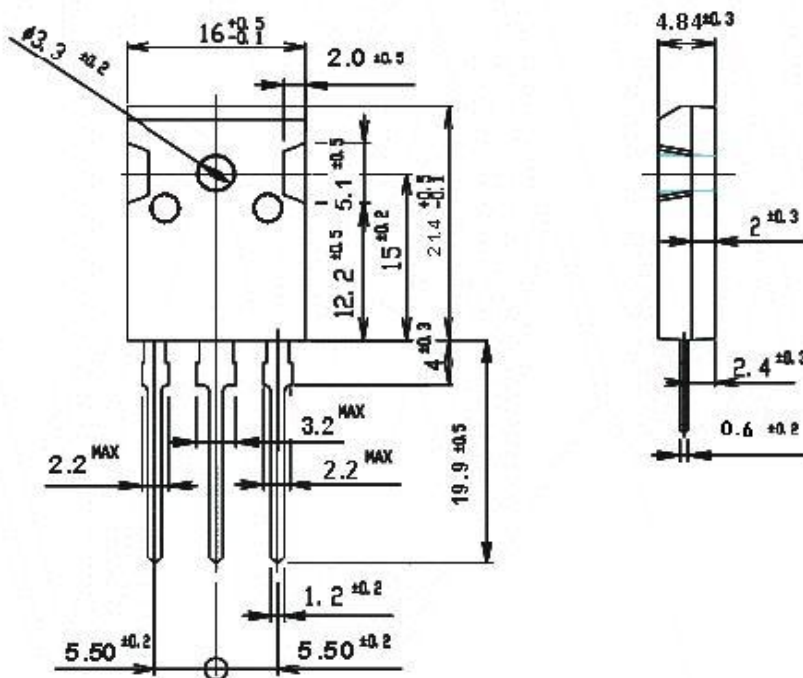
- Switching Power Supply
- Power Switching Circuits
- General Purpose

### Features:

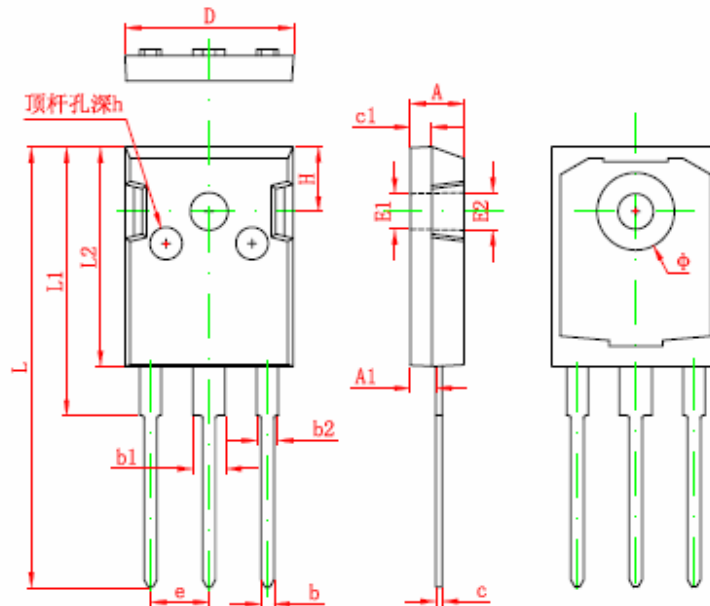
- Ultra-Fast Switching
- High Current Capability
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-0
- This is a Pb - Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request



### Mechanical Dimensions: In mm/Inches



### OPTION 1(SR)

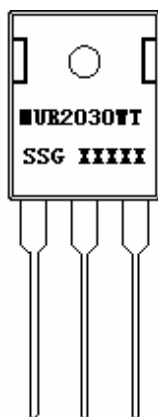


| Symbol | Dimensions In Millimeters |        | Dimensions In Inches |       |
|--------|---------------------------|--------|----------------------|-------|
|        | Min                       | Max    | Min                  | Max   |
| A      | 4.850                     | 5.150  | 0.191                | 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 |
| c      | 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 |
| phi    | 7.100                     | 7.300  | 0.280                | 0.287 |
| e      | 5.450 TYP                 |        | 0.215 TYP            |       |
| H      | 5.980 REF                 |        | 0.235 REF            |       |
| h      | 0.000                     | 0.300  | 0.000                | 0.012 |

**OPTION 2(CJ)**

**TO-247AD**

**Marking Diagram:**



Where XXXXX is YYWWL

MUR = Device Type  
20 = Forward Current (20A)  
30 = Reverse Voltage (300V)  
WT = Configuration  
SSG = SSG  
YY = Year  
WW = Week  
L = Lot Number

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

**Ordering Information:**

| Device    | Package               | Shipping      |
|-----------|-----------------------|---------------|
| MUR2030WT | TO-247AD<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     |
| Max. Average Forward                             | $I_{F(AV)}$ | 50% duty cycle @Tc=95°C,<br>rectangular wave form | 20   | A     |
| Max. Peak One Cycle Non-Repetitive Surge Current | $I_{FSM}$   | 50Hz, Half Sine wave                              | 125  | A     |

**Electrical Characteristics:**

| Characteristics                          | Symbol   | Condition  | Max. | Units   |
|--|----------|--|------|---------|
| Max. Forward Voltage Drop<br>(Per leg)*  | $V_{F1}$ | @ $I_F=10A$ , Pulse, $T_J = 25^\circ C$            | 1.5  | V       |
|  | $V_{F2}$ | @ $I_F=10A$ , Pulse, $T_J = 125^\circ C$           | 1.4  | V       |
| Max. Reverse Current<br>(Per leg)*       | $I_{R1}$ | @ $V_R = \text{rated } V_R$<br>$T_J = 25^\circ C$  | 10   | $\mu A$ |
|  | $I_{R2}$ | @ $V_R = \text{rated } V_R$<br>$T_J = 125^\circ C$ | 500  | $\mu A$ |
| Max. Reverse Recovery Time<br>(Per leg)* | $t_{rr}$ | $I_F=500mA$ , $I_R=1A$ , and $I_{rm}=250mA$        | 35   | ns      |

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

**Thermal-Mechanical Specifications:**

| Characteristics   | Symbol          | Condition    | Specification | Units        |
|---|-----------------|--------------|---------------|--------------|
| Max. Junction Temperature                                   | $T_J$           | -            | -55 to +150   | $^\circ C$   |
| Max. Storage Temperature                                    | $T_{stg}$       | -            | -55 to +150   | $^\circ C$   |
| Maximum Thermal<br>Resistance Junction to Case<br>(Per Leg) | $R_{\theta JC}$ | DC operation | 1.5           | $^\circ C/W$ |
| Approximate Weight  | wt              | -            | 6.7           | g            |
| Case Style  | TO-247AD        |              |               |              |

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