

**Green Products** 

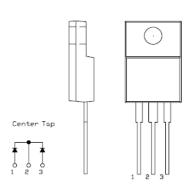
### MURF2060CT ULTRAFAST PLASTIC RECTIFIER

#### **Applications:**

- **Switching Power Supply**
- **Power Switching Circuits**
- **General Purpose**

#### Features:

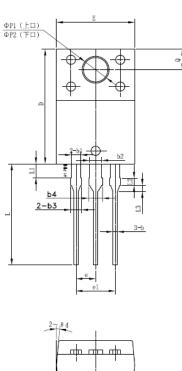
- **Ultra-Fast Switching**
- **High Current Capability**
- **Low Reverse Leakage Current**
- **High Surge Current Capability**
- Plastic Material has UL Flammability Classification 94V-O
- This is a Pb Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon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

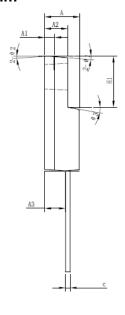


**OUTLINE DRAWING** 

TYP

#### **Mechanical Dimensions: In mm**







| STWIDGE          | IVIIIN.      | IIP.                            | IVIAA.                       |
|------------------|--------------|---------------------------------|------------------------------|
| Α                | 4.30         | 4.50                            | 4.70                         |
| A1               | 1.10         | 1.30                            | 1.50                         |
| A2               | 2.80         | 3.00                            | 3.20                         |
| A3               | 2.50         | 2.70                            | 3.20<br>2.90                 |
| A2<br>A3<br>b    | 0.50<br>1.10 | 3.00<br>2.70<br>0.60            | 0.75                         |
| b1               | 1.10         | 1.20                            | 1.35                         |
| b2               | 1.50         | 1.60                            | 0.75<br>1.35<br>1.75         |
| b3               | 1.20         | 1.30                            | 1.45                         |
| b4               | 1.60         | 1.70                            | 1.85                         |
| С                | 0.55         | 0.60                            | 0.75                         |
| C<br>D<br>E<br>e | 14.80        | 15.00                           | 15.20                        |
| E                | 9.96         | 10.16                           | 10.36                        |
| е                |              | 2.55                            |                              |
| e1               |              | 5.10                            |                              |
| H1               | 6.50         | 6.70                            | 6.90                         |
| L                | 12.70        | 13.20                           | 13.70                        |
| L1<br>L2<br>L3   | 1.60         | 1.80<br>1.00                    | 2.00<br>1.20<br>1.00<br>3.70 |
| L2               | 0.80         | 1.00                            | 1.20                         |
| L3               | 0.60         | 0.80                            | 1.00                         |
| ΦP1(上口)          | 3.30         | 3.50                            | 3.70                         |
| <b>ΦP2</b> (下口)  | 2.99         | 3.19                            | 3.39                         |
| Q                | 2.50         | 2.70                            | 2.90                         |
| Θ1               |              | 5°                              |                              |
| Θ2               |              | 3.19<br>2.70<br>5°<br>4°<br>10° |                              |
| Θ3               |              | 10°                             |                              |
| Ω4               |              | E°                              | l                            |

SYMBOL MIN

Θ5

**ITO-220AB** 

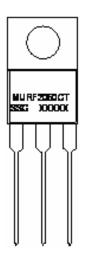
<sup>•</sup> Weigi Street, Airport Development Zone, Jiangning District, Nanjing, China 211113 🗏 (86) 25-87123907 •

<sup>•</sup> FAX (86) 25-87123900 • World Wide Web Site - http://www.sangdest.com.cn • E-Mail Address - sales@ sangdest.com.cn •



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#### **Marking Diagram:**



Where XXXXX is YYWWL

MUR = Device Type F = Package type

20 = Forward Current (20A) 60 = Reverse Voltage (600V)

CT = Configuration

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

Cautions: Molding resin

Epoxy resin UL:94V-0

### **Ordering Information:**

| Device     | Package                | Shipping     |
|------------|------------------------|--------------|
| MURF2060CT | ITO-220AB<br>(Pb-Free) | 50pcs / 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  | $V_{RWM}$           | -   | 600  | V     |
| Max. Average Forward  | I <sub>F (AV)</sub> | 50% duty cycle @Tc=100°C, rectangular wave form | 20   | Α     |
| Max. Peak One Cycle Non-<br>Repetitive Surge Current<br>(Per leg) | I <sub>FSM</sub>    | 8.3ms, Half Sine pulse                          | 110  | А     |

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#### **Electrical Characteristics:**

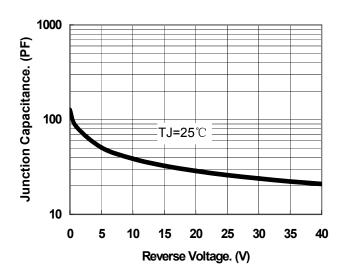
| Characteristics   | Symbol           | Condition   | Max. | Units |
|---|------------------|---|------|-------|
| Max. Forward Voltage Drop   | $V_{F1}$         | @ 10A, Pulse, T <sub>J</sub> = 25°C   | 2.2  | V     |
| (Per leg)*  | $V_{F2}$         | @ 10A, Pulse, T <sub>J</sub> = 100°C  | 2.0  | V     |
| Max. Reverse Current*   | I <sub>R1</sub>  | $@V_R = rated V_R$<br>$T_J = 25^{\circ}C$   | 5    | μA    |
|   | I <sub>R2</sub>  | $@V_R = rated V_R$<br>$T_J = 100$ °C  | 50   | μA    |
| Max. Reverse Recovery Time  | t <sub>rr</sub>  | $I_F$ =500mA, $I_R$ =1A,and $I_{rm}$ =250mA   | 50   | ns    |
| RSM Isolation Voltage<br>(t=1.0 second, R.H.<<br>=30%,<br>T <sub>A</sub> =25°C) | V <sub>1so</sub> | Clip mounting, the epoxy body away from the heatsink edge by more than 0.110" along the lead direction. | 4500 | V     |
| ,   |                  | Clip mounting, the epoxy body is inside the heatsink  | 3500 |       |
|   |                  | Screw mounting, the epoxy body is inside the heatsink   | 1500 |       |

 $<sup>^*</sup>$  Pulse width < 300  $\mu$ s, duty cycle < 2%

## **Thermal-Mechanical Specifications:**

| Characteristics             | Symbol           | Condition    | Specification | Units |
|-----------------------------|------------------|--------------|---------------|-------|
| Max. Junction Temperature   | $T_J$            | -            | -55 to +150   | °C    |
| Max. Storage Temperature    | T <sub>stg</sub> | -            | -55 to +150   | °C    |
| Maximum Thermal             | $R_{\theta JC}$  | DC operation | 4             | °C/W  |
| Resistance Junction to Case |                  |              |               |       |
| Approximate Weight          | wt               | -            | 2             | g     |
| Case Style                  |                  | ITO-220AB    |               |       |

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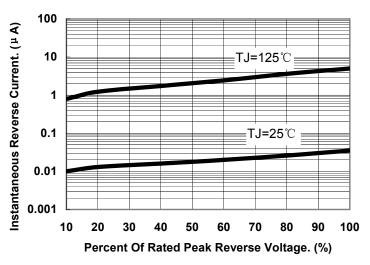


Fig.1-Typical Junction Capacitance

Fig.2-Typical Reverse Characteristics

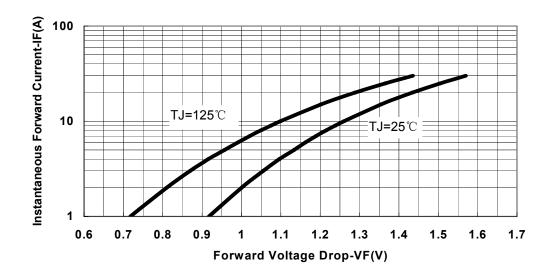


Fig.3-Typical Forward Voltage Drop Characteristics

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#### MURF2060CT

# Technical Data Data Sheet N0238, Rev. -

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