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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

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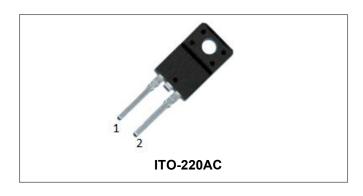




## RoHS



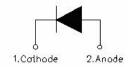
### **MURF860 ULTRAFAST RECTIFIER**



#### **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

#### **Circuit Diagram**



### **Applications**

- Switching Power Supply
- Power Switching Circuits
- General Purpose

#### Maximum Ratings and Electrical Characteristics @TA=25°C unless otherwise specified

| Characteristic  | Symbol   | MURF860     | Units |
|---|--|-------------|-------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage                                | V <sub>RRM</sub><br>V <sub>RWM</sub><br>V <sub>R</sub> | 600         | V     |
| RMS Reverse Voltage   | V <sub>R(RMS)</sub>                                    | 420         | V     |
| Average Rectified Output Current @T <sub>A</sub> = 55°C   | lo   | 8.0         | А     |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms Single half sine-wave superimposed on<br>rated load (JEDEC Method) | I <sub>FSM</sub>                                       | 110         | A     |
| Forward Voltage (per element)   | V <sub>FM1</sub>                                       | 2.2         | V     |
|   | V <sub>FM2</sub>                                       | 2.0         | V     |
| Peak Reverse Current @T <sub>A</sub> = 25°C At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C                      | I <sub>RM</sub>  | 5<br>50     | μA    |
| Maximum Reverse Recovery Time (Note 1)  | Trr  | 50          | ns    |
| Max. Voltage Rate of Change   | dv/dt  | 10,000      | V/µs  |
| Typical Thermal Resistance Junction to Ambient (Note 2)   | R <sub>θJA</sub>                                       | 25          | K/W   |
| Storage Temperature Range   | T <sub>STG</sub> , T <sub>J</sub>                      | -55 to +150 | °C    |
| Approximate Weight  | wt   | 1.6         | g     |

**Note**: 1. Measured with  $I_F$ =0.5A,  $I_R$ =1.0A,  $I_{rr}$ =0.25A

2. Mount on Cu-Pad Size 16mm×16mm on P.C.B.

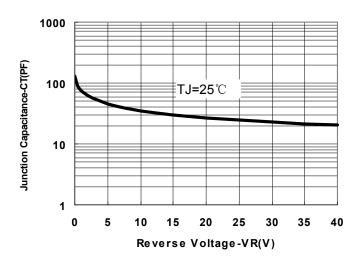
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### **Ratings and Characteristics Curves**



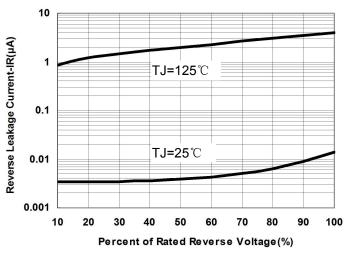


Fig.1-Typical Junction Capacitance

Fig.2-Typical Reverse Characteristics

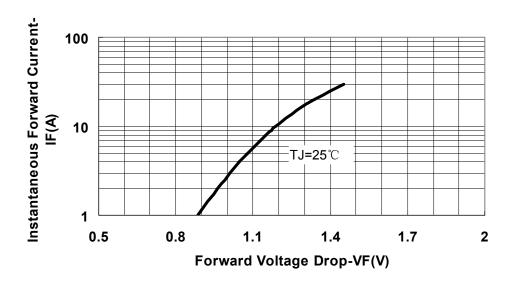


Fig.3-Typical Forward Voltage Drop Characteristics

<sup>•</sup> China - Germany - Korea - Singapore - United States •

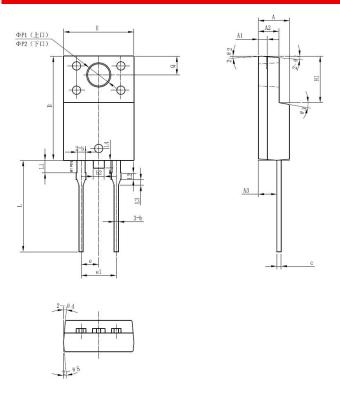
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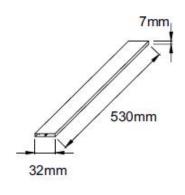


#### **Mechanical Dimensions ITO-220AC**



| CVMDOL          | Millimeters |       |       |  |
|-----------------|-------------|-------|-------|--|
| SYMBOL          | MIN.        | TYP.  | MAX.  |  |
| 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  | 2.90  |  |
| b               | 0.50        | 0.60  | 0.75  |  |
| b1              | 1.10        | 1.20  | 1.35  |  |
| b2              | 1.50        | 1.60  | 1.75  |  |
| С               | 0.50        | 0.60  | 0.75  |  |
| D               | 14.80       | 15.00 | 15.20 |  |
| Ш               | 9.96        | 10.16 | 10.36 |  |
| е               | ı           | 2.55  | -     |  |
| e1              | 5.00        | 5.10  | 5.16  |  |
| H1              | 6.50        | 6.70  | 6.90  |  |
| L               | 12.70       | 13.20 | 13.70 |  |
| L1              | 1.60        | 1.80  | 2.00  |  |
| L2              | 0.80        | 1.00  | 1.20  |  |
| L3              | 0.60        | 0.80  | 1.00  |  |
| L4              | -           | 1.10  | 1.50  |  |
| <b>ΦP1</b> (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              |             | 4°    |       |  |
| Θ3              |             | 10°   |       |  |
| Θ4              |             | 5°    |       |  |
| Θ5              |             | 5°    |       |  |

### **Tube Specification**



## **Marking Diagram**



Where XXXXX is YYWWL

MUR = Device Type
F = Package type
8 = Forward Current (8A)
60 = Reverse Voltage (600V)
SSG = SSG

 SSG
 = SSG

 YY
 = Year

 WW
 = Week

 L
 = Lot Number

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

## **Ordering Information**

| Device  | Package             | Shipping     |  |
|---------|---------------------|--------------|--|
| MURF860 | ITO-220AC (Pb-Free) | 50 pcs/ tube |  |

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification

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