| THERMAL PERFORMANCE                 |                          |                 |     |      |  |  |
|-------------------------------------|--------------------------|-----------------|-----|------|--|--|
| PARAMETER                           |                          | SYMBOL          | TYP | UNIT |  |  |
|                                     | MURF1620CT               | $R_{\Theta JC}$ | 3   | °C/W |  |  |
| Junction-to-case thermal resistance | MURF1640CT<br>MURF1660CT |                 | 2   | °C/W |  |  |

| ELECTRICAL SPECIFICATIONS (T <sub>A</sub> = 25°C unless otherwise noted) |            |   |                  |     |       |      |  |
|--|------------|---|------------------|-----|-------|------|--|
| PARAMETER  |            | CONDITIONS                                      | SYMBOL           | TYP | MAX   | UNIT |  |
| Forward voltage per diode <sup>(1)</sup>                                 | MURF1620CT | I <sub>F</sub> = 8A,T <sub>J</sub> = 25°C       | V <sub>F</sub>   | -   | 0.975 | V    |  |
|  | MURF1640CT |   |                  | -   | 1.300 | V    |  |
|  | MURF1660CT |   |                  | -   | 1.500 | V    |  |
|  | MURF1620CT | I <sub>F</sub> = 8A,T <sub>J</sub> = 125°C      |                  | -   | 0.895 | V    |  |
|  | MURF1640CT |   |                  | -   | 1.100 | V    |  |
|  | MURF1660CT |   |                  | -   | 1.200 | V    |  |
| Reverse current @ rated V <sub>R</sub> per diode <sup>(2)</sup>          | MURF1620CT |   | - I <sub>R</sub> | -   | 5     | μΑ   |  |
|  | MURF1640CT | $T_J = 25^{\circ}C$                             |                  | _   | 10    | μA   |  |
|  | MURF1660CT |   |                  |     | 10    | μΛ   |  |
|  | MURF1620CT | T <sub>J</sub> = 125°C                          |                  | -   | 250   | μΑ   |  |
|  | MURF1640CT |   |                  | _   | 500   | μA   |  |
|  | MURF1660CT |   |                  | _   | 300   | μΛ   |  |
| Reverse recovery time  | MURF1620CT | $I_F = 0.5A$ , $I_R = 1.0A$<br>$I_{rr} = 0.25A$ | t <sub>rr</sub>  | -   | 25    | ns   |  |
|  | MURF1640CT |   |                  | _   | 50    | ns   |  |
|  | MURF1660CT | I <sub>II</sub> – 0.23A                         |                  | _   | 30    | 113  |  |

#### Notes:

- 1. Pulse test with PW = 0.3ms
- 2. Pulse test with PW = 30ms

| ORDERING INFORMATION            |           |           |  |  |  |
|---------------------------------|-----------|-----------|--|--|--|
| ORDERING CODE <sup>(1)(2)</sup> | PACKAGE   | PACKING   |  |  |  |
| MURF16xCT                       | ITO-220AB | 50 / Tube |  |  |  |
| MURF16xCTH                      | ITO-220AB | 50 / Tube |  |  |  |

## Notes:

- 1. "x" defines voltage from 200V(MURF1620CT) to 600V(MURF1660CT)
- 2. "H" means AEC-Q101 qualified

Fig.2 Typical Junction Capacitance



#### **CHARACTERISTICS CURVES**

 $(T_A = 25^{\circ}C \text{ unless otherwise noted})$ 

**Fig.1 Forward Current Derating Curve** 

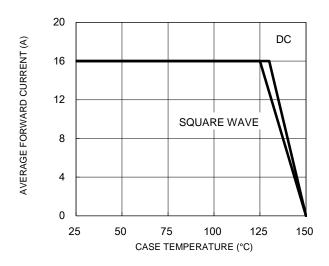
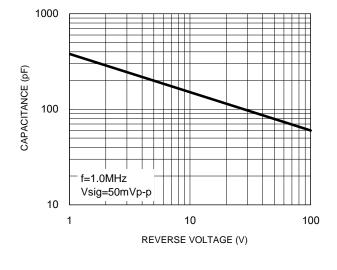
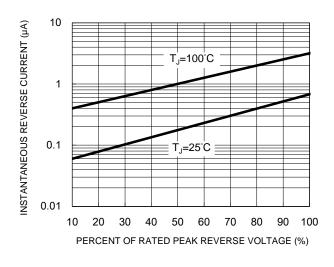


Fig.3 Typical Reverse Characteristics



**Fig.4 Typical Forward Characteristics** 



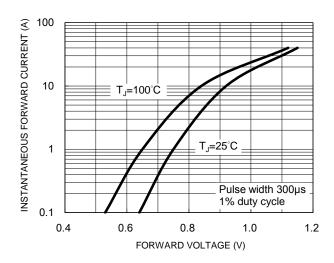
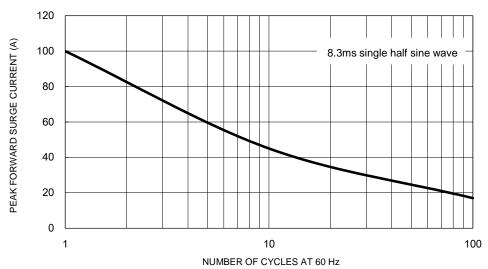


Fig.5 Maximum Non-Repetitive Forward Surge Current



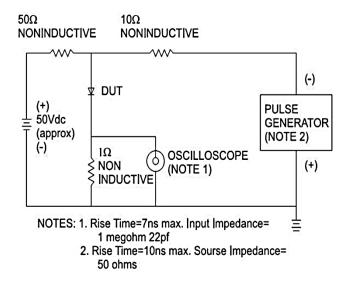
3

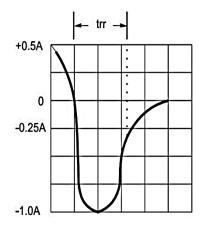
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#### **CHARACTERISTICS CURVES**

 $(T_A = 25^{\circ}C \text{ unless otherwise noted})$ 

Fig.6 Reverse Recovery Time Characteristic and Test Circuit Diagram





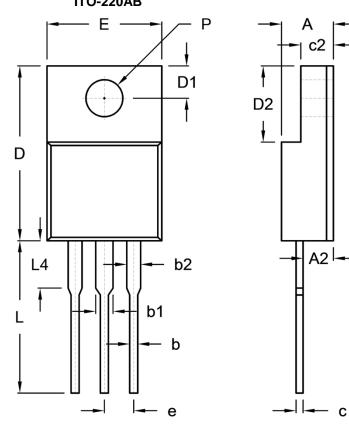
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### **PACKAGE OUTLINE DIMENSIONS**

## ITO-220AB



| DIM  | Unit (mm) |       | Unit (inch) |       |  |
|------|-----------|-------|-------------|-------|--|
| DIM. | Min.      | Max.  | Min.        | Max.  |  |
| Α    | 4.30      | 4.70  | 0.169       | 0.185 |  |
| A2   | 2.30      | 2.96  | 0.091       | 0.117 |  |
| b    | 0.50      | 0.90  | 0.020       | 0.035 |  |
| b1   | -         | 1.80  | -           | 0.071 |  |
| b2   | 0.95      | 1.45  | 0.037       | 0.057 |  |
| С    | 0.46      | 0.76  | 0.018       | 0.030 |  |
| c2   | 2.50      | 3.16  | 0.098       | 0.124 |  |
| D    | 14.80     | 15.50 | 0.583       | 0.610 |  |
| D1   | 2.40      | 3.20  | 0.094       | 0.126 |  |
| D2   | 6.30      | 6.90  | 0.248       | 0.272 |  |
| E    | 9.60      | 10.30 | 0.378       | 0.406 |  |
| е    | 2.41      | 2.67  | 0.095       | 0.105 |  |
| L    | 12.60     | 13.80 | 0.496       | 0.543 |  |
| L4   | -         | 4.10  | -           | 0.161 |  |
| Р    | 3.00      | 3.40  | 0.118       | 0.134 |  |

#### **MARKING DIAGRAM**



P/N = Marking Code G = Green Compound

YWW = Date Code F = Factory Code

5 Version: K2105



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