

ROHS

Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311

Phone: (818) 701-4933 Fax: (818) 701-4939 BA157 THRU BA159

## **Features**

- Low Leakage Current
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Fast Switching For High Efficiency
- High emperature soldering guaranteed:260°C /10 seconds
- Lead Free Finish/RoHS Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)

# **Maximum Ratings**

- Operating Temperature: -65°C to +125°C
- Storage Temperature: -65°C to +125°C
- Maximum Thermal Resistance; 25°C/W Junction To Lead

| MCC<br>Catalog<br>Number | Device<br>Marking | Maximum<br>Recurrent<br>Peak<br>Reverse<br>Voltage | Maximum<br>RMS<br>Voltage | Maximum<br>DC<br>Blocking<br>Voltage |
|--------------------------|-------------------|----------------------------------------------------|---------------------------|--------------------------------------|
| BA157                    | BA157             | 400V                                               | 280V                      | 400V                                 |
| BA158                    | BA158             | 600V                                               | 420V                      | 600V                                 |
| BA159                    | BA159             | 1000V                                              | 700V                      | 1000V                                |

### **Electrical Characteristics @ 25°C Unless Otherwise Specified**

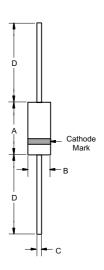
| Average Forward    | $I_{F(AV)}$ | 1.0A   | T <sub>A</sub> =50°C   |
|--------------------|-------------|--------|------------------------|
| Current            |             |        |                        |
| Peak Forward Surge | $I_{FSM}$   | 35A    | 8.3ms, half sine       |
| Current            |             |        |                        |
| Maximum            |             |        |                        |
| Instantaneous      | $V_{F}$     | 1.3V   | $I_{FM} = 1.0A;$       |
| Forward Voltage    |             |        | T <sub>A</sub> = 25°C* |
| Maximum DC         |             |        |                        |
| Reverse Current At | $I_R$       | 5.0µA  | T <sub>J</sub> = 25°C  |
| Rated DC Blocking  |             | •      |                        |
| Voltage            |             |        |                        |
| Maximum Reverse    |             |        |                        |
| Recovery Time      |             |        |                        |
| BA157~BA158        | $T_{rr}$    | 150nS  | I <sub>F</sub> =0.5A,  |
|                    |             | 250nS  | I <sub>R</sub> =1.0A,  |
| BA159              |             | 200110 | I <sub>rr</sub> =0.25A |
| Typical Junction   | С           | 15pF   | Measured at            |
| Capacitance        |             |        | 1.0MHz,                |
|                    |             |        | V <sub>R</sub> =4.0V   |

<sup>\*</sup>Pulse test: Pulse width 300 µsec, Duty cycle 2%

Note: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

# 1 Amp Fast Recovery Rectifier 400~1000 Volts

## DO-41



| DIMENSIONS |        |      |       |      |      |  |
|------------|--------|------|-------|------|------|--|
|            | INCHES |      | MM    |      |      |  |
| DIM        | MIN    | MAX  | MIN   | MAX  | NOTE |  |
| Α          | .166   | .205 | 4.10  | 5.20 |      |  |
| В          | .080   | .107 | 2.00  | 2.70 |      |  |
| C          | .028   | .034 | .70   | .90  |      |  |
| D          | 1.000  | -    | 25.40 |      |      |  |

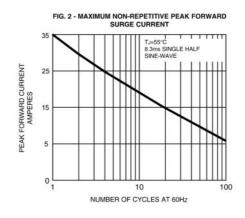


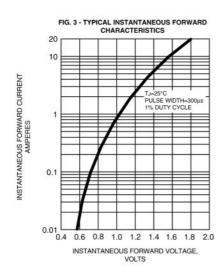
# **BA157 THRU BA159**

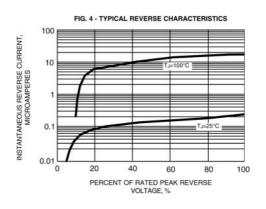
## FIG. 1 - FORWARD CURRENT DERATING CURVE 1.0 AVERAGE FORWARD CURRENT AMPERES 0.8 0.4 0.2 RESISTIVE OR INDUCTIVE LOAD 0.375" (9.5mm) LEAD LENGTH 0

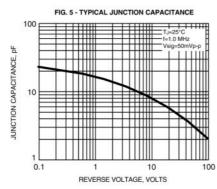
AMBIENT TEMPERATURE, °C

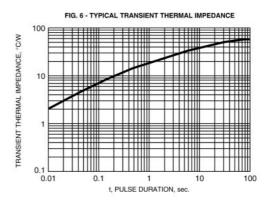
50 75 100 125 150 175













#### **Micro Commercial Components**

## **Ordering Information:**

| Device         | Packing                      |  |
|----------------|------------------------------|--|
| Part Number-TP | Tape&Reel: 5Kpcs/Reel        |  |
| Part Number-AP | Ammo Packing: 5Kpcs/Ammo Box |  |
| Part Number-BP | Bulk: 50Kpcs/Carton          |  |

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