

**Micro Commercial Components** 



Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311

Phone: (818) 701-4933 Fax: (818) 701-4939 BC636-10 BC636-16 BC638 BC640

## **Features**

- Through Hole Package
- Capable of 830mWatts of Power Dissipation
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensitivity Level 1

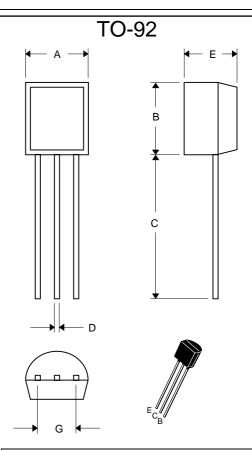
## **Maximum Ratings**

| Symbol           | Rating                    | Value | Unit        |                      |
|------------------|---------------------------|-------|-------------|----------------------|
|                  | Collector-Emitter Voltage | BC636 | -45         | V                    |
| $V_{CEO}$        |                           | BC638 | -60         | V                    |
|                  |                           | BC640 | -100        | V                    |
| $V_{CBO}$        | Collector-Base Voltage    | BC636 | -45         | V                    |
|                  |                           | BC638 | -60         | V                    |
|                  |                           | BC640 | -80         | V                    |
| $V_{EBO}$        | Emitter-Base Voltage      |       | -5.0        | V                    |
| Ic               | Collector Current         |       | -1.0        | Α                    |
| l <sub>B</sub>   | Base Current              |       | -100        | mA                   |
| $T_J$            | Junction Temperature      |       | -65 to +150 | $^{\circ}\mathbb{C}$ |
| T <sub>STG</sub> | Storage Temperature       |       | -65 to +150 | $^{\circ}\mathbb{C}$ |

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

| Symbol              | Parameter   | Min | Тур | Max  | Unit  |  |
|---------------------|---|-----|-----|------|-------|--|
| OFF CHARACTERISTICS |   |     |     |      |       |  |
| .,                  | Collector-Emitter Breakdown Voltage                         |     |     |      |       |  |
|                     | $(I_C=-1 \text{mAdc}, I_B=0)$ BC636                         | -45 |     |      | Vdc   |  |
| $V_{(BR)CEO}$       | BC638   | -60 |     |      | Vdc   |  |
|                     | BC640   | -80 |     |      | Vdc   |  |
| I <sub>CBO</sub>    | Collector Cutoff Current                                    |     |     |      |       |  |
|                     | $(V_{CB}=-30Vdc, I_{E}=0)$                                  |     |     | -0.1 | μ Adc |  |
| I <sub>EBO</sub>    | Emitter Cutoff Current                                      |     |     |      |       |  |
|                     | $(V_{EB}=-5.0Vdc, I_{C}=0)$                                 |     |     | -0.1 | μ Adc |  |
| h <sub>FE(1)</sub>  | DC Current Gain   |     |     |      |       |  |
|                     | $(V_{CE}=-2Vdc, I_{C}=-5mAdc)$                              | 40  |     |      |       |  |
| h <sub>FE(2)</sub>  | DC Current Gain   |     |     |      |       |  |
|                     | (V <sub>CE</sub> =-2Vdc, I <sub>C</sub> =-150mAdc) BC636-10 | 63  |     | 160  |       |  |
|                     | BC636-16,BC638,BC640  | 100 |     | 250  |       |  |
| h <sub>FE(3)</sub>  | DC Current Gain   |     |     |      |       |  |
|                     | $(V_{CE}=-2Vdc, I_{C}=-500mAdc)$                            | 25  |     |      |       |  |
| $V_{CE(sat)}$       | Collector-Emitter Saturation Voltage                        |     |     |      |       |  |
|                     | $(I_C=-500 \text{mAdc}, I_B=-50 \text{mAdc})$               |     |     | -0.5 | Vdc   |  |
| $V_{BE(on)}$        | Base-Emitter Voltage  |     |     |      |       |  |
|                     | $(I_C=-500 \text{mAdc}, V_{CE}=-2 \text{Vdc})$              |     |     | -1.0 | Vdc   |  |
| f⊤                  | Transition Frequency  |     |     |      |       |  |
|                     | $(V_{CE}=-5.0Vdc, I_{C}=-50mAdc, f=100MHz)$                 | 100 |     |      | MHz   |  |

# PNP Epitaxial Silicon Transistors



| DIMENSIONS |        |      |       |       |      |
|------------|--------|------|-------|-------|------|
|            | INCHES |      | MM    |       |      |
| DIM        | MIN    | MAX  | MIN   | MAX   | NOTE |
| Α          | .170   | .190 | 4.33  | 4.83  |      |
| В          | .170   | .190 | 4.30  | 4.83  |      |
| С          | .550   | .590 | 13.97 | 14.97 |      |
| D          | .010   | .020 | 0.36  | 0.56  |      |
| Е          | .130   | .160 | 3.30  | 3.96  |      |
| G          | .010   | .104 | 2.44  | 2.64  |      |



## **Ordering Information:**

| Device         | Packing                      |
|----------------|------------------------------|
| Part Number-AP | Ammo Packing: 2Kpcs/Ammo Box |
| Part Number-BP | Bulk: 100Kpcs/Carton         |

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