



Micro Commercial Components



Micro Commercial Components  
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## 2SC945-Y 2SC945-GR

### Features

- Capable of 0.4Watts of Power Dissipation.
- Collector-current 0.15A
- Collector-base Voltage 60V
- Operating and storage junction temperature range: -55°C to +150°C
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/Rohs Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Halogen free available upon request by adding suffix "-HF"

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

| Symbol | Parameter | Min | Max | Units |
|--------|-----------|-----|-----|-------|
|--------|-----------|-----|-----|-------|

#### OFF CHARACTERISTICS

|               |   |     |     |              |
|---------------|---|-----|-----|--------------|
| $V_{(BR)CEO}$ | Collector-Emitter Breakdown Voltage<br>( $I_C=0.1mA_{dc}, I_B=0$ )  | 50  |     | Vdc          |
| $V_{(BR)CBO}$ | Collector-Base Breakdown Voltage<br>( $I_C=1000\mu A_{dc}, I_E=0$ ) | 60  |     | Vdc          |
| $V_{(BR)EBO}$ | Emitter-Base Breakdown Voltage<br>( $I_E=100\mu A_{dc}, I_C=0$ )    | 5.0 |     | Vdc          |
| $I_{CBO}$     | Collector Cutoff Current<br>( $V_{CB}=60V_{dc}, I_E=0A_{dc}$ )      |     | 0.1 | $\mu A_{dc}$ |
| $I_{CER}$     | Collector Cutoff Current<br>( $V_{CE}=55V_{dc}, R=10M\Omega$ )      |     | 0.1 | $\mu A_{dc}$ |
| $I_{EBO}$     | Emitter Cutoff Current<br>( $V_{EB}=5.0V_{dc}, I_C=0A_{dc}$ )       |     | 0.1 | $\mu A_{dc}$ |

#### ON CHARACTERISTICS

|               |   |     |     |     |
|---------------|---|-----|-----|-----|
| $h_{FE(1)}$   | DC Current Gain<br>( $I_C=1.0mA_{dc}, V_{CE}=6.0V_{dc}$ )                   | 120 | 400 |     |
| $h_{FE(2)}$   | DC Current Gain<br>( $I_C=0.1mA_{dc}, V_{CE}=6.0V_{dc}$ )                   | 40  |     |     |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage<br>( $I_C=100mA_{dc}, I_B=10mA_{dc}$ ) |     | 0.3 | Vdc |
| $V_{BE(sat)}$ | Base-Emitter Saturation Voltage<br>( $I_C=100mA_{dc}, I_B=10mA_{dc}$ )      |     | 1.0 | Vdc |
| $V_{BE}$      | Base-Emitter Voltage<br>( $I_E=310mA_{dc}$ )                                |     | 1.4 | Vdc |

#### SMALL-SIGNAL CHARACTERISTICS

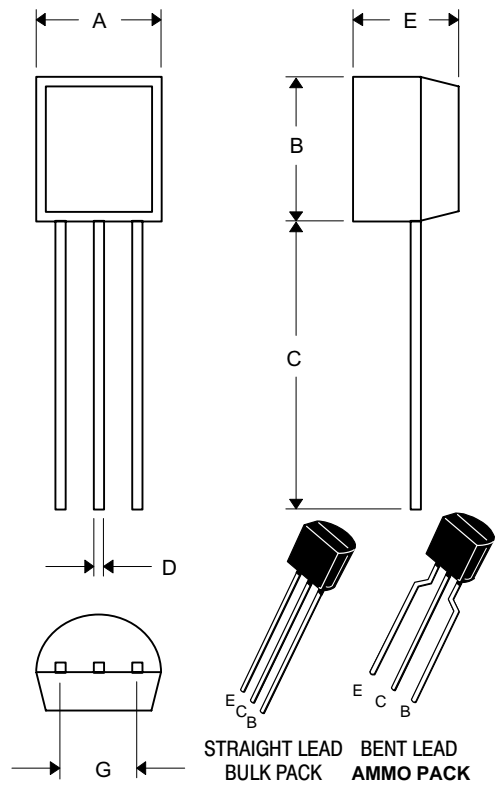
|       |  |     |  |     |
|-------|--|-----|--|-----|
| $f_T$ | Transistor Frequency<br>( $I_C=10mA_{dc}, V_{CE}=6.0V_{dc}, f=30MHz$ ) | 150 |  | MHz |
|-------|--|-----|--|-----|

#### CLASSIFICATION OF $h_{FE(1)}$

|       |         |         |
|-------|---------|---------|
| Rank  | Y       | GR      |
| Range | 120-240 | 200-400 |

## NPN Silicon Plastic-Encapsulate Transistor

### TO-92



STRAIGHT LEAD BULK PACK BENT LEAD AMMO PACK

#### DIMENSIONS

| DIM | INCHES |      | MM    |      | NOTE          |
|-----|--------|------|-------|------|---------------|
|     | MIN    | MAX  | MIN   | MAX  |               |
| A   | .175   | .185 | 4.45  | 4.70 |               |
| B   | .175   | .185 | 4.45  | 4.70 |               |
| C   | .500   | ---  | 12.70 | ---  |               |
| D   | .016   | .020 | 0.41  | 0.63 |               |
| E   | .135   | .145 | 3.43  | 3.68 |               |
| G   | .095   | .105 | 2.42  | 2.67 | Straight Lead |
|     | .173   | .220 | 4.40  | 5.60 | Bent Lead     |

\* For ammo packing detailed specification, click here to visit our website of product packaging for details.

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### Ordering Information :

| Device         | Packing                     |
|----------------|-----------------------------|
| Part Number-AP | Ammo Packing: 20Kpcs/Carton |
| Part Number-BP | Bulk: 100Kpcs/Carton        |

Note : Adding "-HF" suffix for halogen free, eg. Part Number-AP-HF

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