



**2SA1015-O**  
**2SA1015-Y**  
**2SA1015-GR**

**PNP Silicon**  
**Plastic-Encapsulate**  
**Transistor**

**Features**

- Capable of 0.4Watts of Power Dissipation.
- Collector-current: -0.15A
- Collector-base Voltage: -50V
- Operating and storage junction temperature range: -55°C to +125°C
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking:A1015
- Lead Free Finish/Rohs Compliant ("P" Suffix designates 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   |
|----------------------------|---|-----|------|---------|
| <b>OFF CHARACTERISTICS</b> |   |     |      |         |
| $V_{(BR)CEO}$              | Collector-Emitter Breakdown Voltage<br>( $I_C = -0.1mA$ , $I_B = 0$ ) | -50 | ---  | Vdc     |
| $V_{(BR)CBO}$              | Collector-Base Breakdown Voltage<br>( $I_C = -100\mu A$ , $I_E = 0$ ) | -50 | ---  | Vdc     |
| $V_{(BR)EBO}$              | Emitter-Base Breakdown Voltage<br>( $I_E = -100\mu A$ , $I_C = 0$ )   | -5  | ---  | Vdc     |
| $I_{CBO}$                  | Collector Cutoff Current<br>( $V_{CB} = -50Vdc$ , $I_E = 0$ )         | --- | -0.1 | $\mu A$ |
| $I_{EBO}$                  | Emitter Cutoff Current<br>( $V_{EB} = -5.0Vdc$ , $I_C = 0$ )          | --- | -0.1 | $\mu A$ |

**ON CHARACTERISTICS**

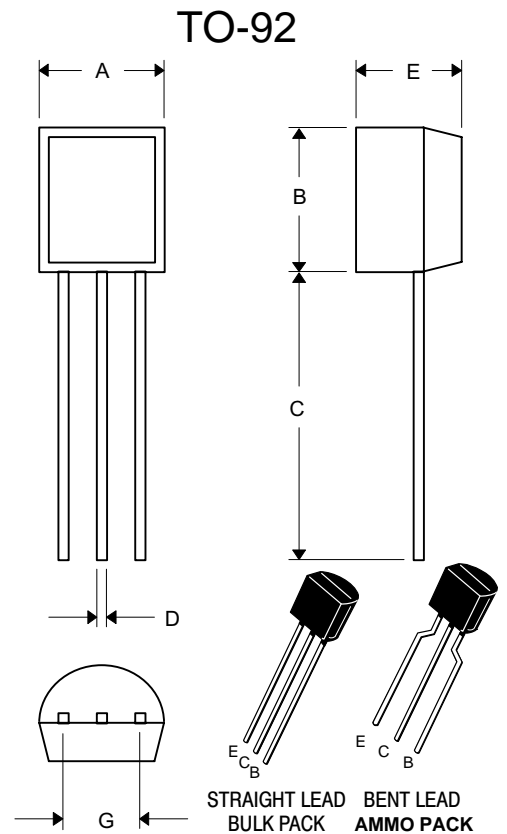
|               |  |     |      |     |
|---------------|--|-----|------|-----|
| $h_{FE}$      | DC Current Gain<br>( $I_C = 2.0mA$ , $V_{CE} = -6.0Vdc$ )                | 70  | 400  | --- |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage<br>( $I_C = 100mA$ , $I_B = 10mA$ ) | --- | -0.3 | Vdc |
| $V_{BE(sat)}$ | Base-Emitter Saturation Voltage<br>( $I_C = 100mA$ , $I_B = 10mA$ )      | --- | -1.1 | Vdc |

**SMALL-SIGNAL CHARACTERISTICS**

|          |  |     |     |     |
|----------|--|-----|-----|-----|
| $f_T$    | Transistor Frequency<br>( $I_C = 1.0mA$ , $V_{CE} = -10Vdc$ , $f = 30MHz$ )      | 80  | --- | MHz |
| $C_{OB}$ | Collector Output Capacitance<br>( $V_{CB} = -10Vdc$ , $I_E = 0$ , $f = 1MHz$ )   | --- | 7.0 | pF  |
| NF       | Noise Figure<br>( $V_{CE} = -6Vdc$ , $I_C = -0.1mA$ , $f = 1KHz$ , $R_g = 10K$ ) | --- | 6.0 | dB  |

**CLASSIFICATION OF H<sub>FE</sub>(1)**

| Rank  | O      | Y       | GR      |
|-------|--------|---------|---------|
| Range | 70-140 | 120-240 | 200-400 |

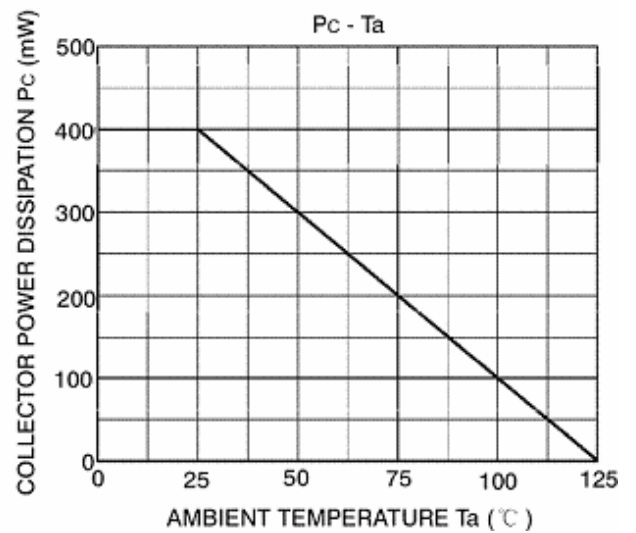
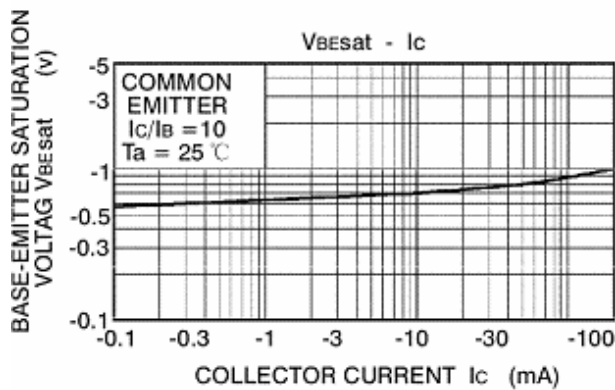
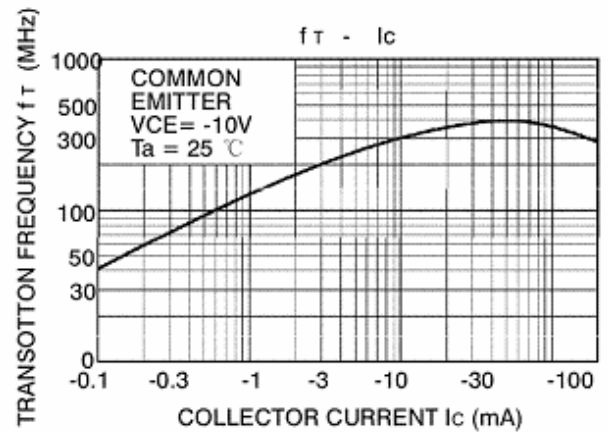
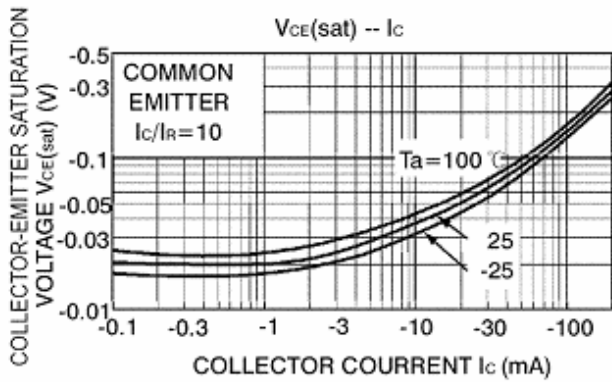
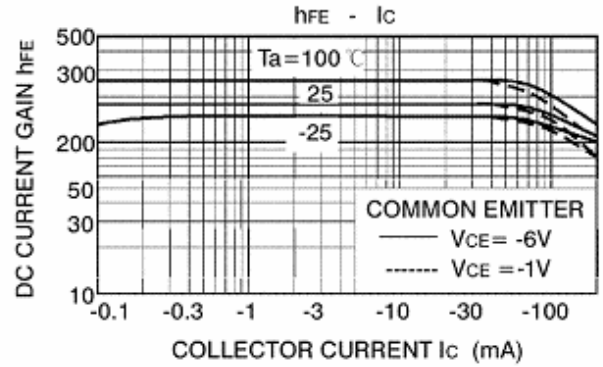
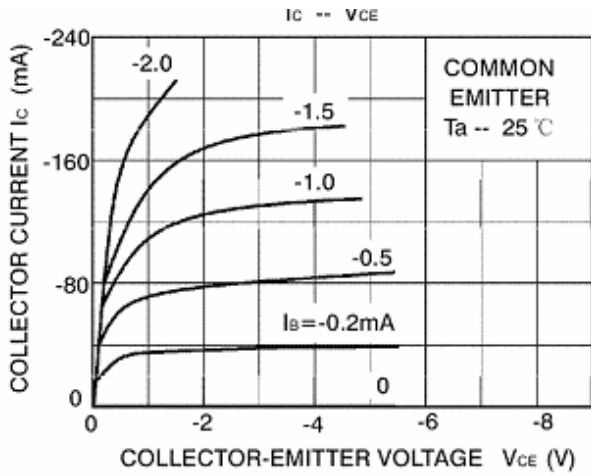


| DIM | INCHES |      | MM    |      | NOTE          |
|-----|--------|------|-------|------|---------------|
|     | MIN    | MAX  | MIN   | MAX  |               |
| A   | .175   | .185 | 4.45  | 4.70 |               |
| B   | .175   | .185 | 4.45  | 4.70 |               |
| C   | .500   | ---  | 12.70 | ---  |               |
| 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.

# 2SA1015

## Typical Characteristics





TM

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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-BP-HF

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