



# 2SA1083-D 2SA1083-E

## PNP Silicon Plastic-Encapsulate Transistor

### Features

- Capable of 0.4Watts of Power Dissipation.
- Collector-current: -0.1A
- 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 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-Emmitter Breakdown Voltage<br>( $I_C = -1.0\text{mA}$ , $I_B = 0$ ) | -60 | ---  | Vdc           |
| $V_{(BR)CBO}$              | Collector-Base Breakdown Voltage<br>( $I_C = -10\mu\text{A}$ , $I_E = 0$ )    | -60 | ---  | Vdc           |
| $V_{(BR)EBO}$              | Emmitter-Base Breakdown Voltage<br>( $I_E = -10\mu\text{A}$ , $I_C = 0$ )     | -5  | ---  | Vdc           |
| $I_{CBO}$                  | Collector Cutoff Current<br>( $V_{CB} = -50\text{Vdc}$ , $I_E = 0$ )          | --- | -0.1 | $\mu\text{A}$ |
| $I_{EBO}$                  | Emmitter Cutoff Current<br>( $V_{EB} = -2.0\text{Vdc}$ , $I_C = 0$ )          | --- | -0.1 | $\mu\text{A}$ |

### ON CHARACTERISTICS

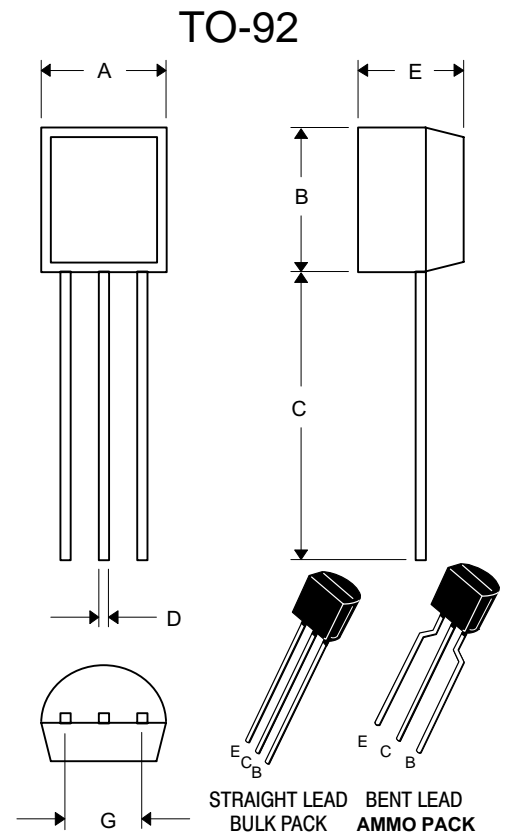
|               |   |           |      |     |
|---------------|---|-----------|------|-----|
| $h_{FE}$      | DC Current Gain<br>( $I_C = -2.0\text{mA}$ , $V_{CE} = -12.0\text{Vdc}$ )               | 250       | 800  | --- |
| $V_{CE(sat)}$ | Collector-Emmitter Saturation Voltage<br>( $I_C = -10\text{mA}$ , $I_B = -1\text{mA}$ ) | ---       | -0.2 | Vdc |
| $V_{BE}$      | Base-Emmitter Voltage<br>( $I_C = -2.0\text{mA}$ , $V_{CE} = -12.0\text{Vdc}$ )         | -0.6(TYP) |      | Vdc |

### SMALL-SIGNAL CHARACTERISTICS

|          |  |          |     |
|----------|--|----------|-----|
| $f_T$    | Transistor Frequency<br>( $I_C = -2.0\text{mA}$ , $V_{CE} = -12.0\text{Vdc}$ )               | 90(TYP)  | MHz |
| $C_{OB}$ | Collector Output Capacitance<br>( $V_{CB} = -10\text{Vdc}$ , $I_E = 0$ , $f = 1\text{MHz}$ ) | 3.5(TYP) | pF  |

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

| Rank  | D       | E       |
|-------|---------|---------|
| Range | 250-500 | 400-800 |



| DIM | INCHES |      | MM    |      | NOTE          |
|-----|--------|------|-------|------|---------------|
|     | MIN    | MAX  | MIN   | MAX  |               |
| A   | .169   | .185 | 4.30  | 4.70 |               |
| B   | .169   | .185 | 4.30  | 4.70 |               |
| C   | .500   | ---  | 12.70 | ---  |               |
| D   | .015   | .022 | 0.38  | 0.55 |               |
| E   | .130   | .146 | 3.30  | 3.70 |               |
| 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-BP-HF

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