



## 2SC5343-O 2SC5343-Y 2SC5343-G 2SC5343-L

### NPN Silicon Transistors

### Features

- Low Collector Saturation Voltage:  $V_{CE(sat)}=0.25V(\text{Max.})$
- Low Output Capacitance:  $C_{ob}=2.0pF(\text{Typ.})$
- Complementary Pair With 2SA1980
- Marking : C5343
- 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)

### Maximum Ratings

| Symbol    | Rating                      | Rating      | Unit |
|-----------|-----------------------------|-------------|------|
| $V_{CEO}$ | Collector-Emitter Voltage   | 50          | V    |
| $V_{CBO}$ | Collector-Base Voltage      | 60          | V    |
| $V_{EBO}$ | Emitter-Base Voltage        | 5.0         | V    |
| $I_C$     | Collector Current           | 150         | mA   |
| $P_C$     | Collector power dissipation | 625         | mW   |
| $T_J$     | Junction Temperature        | 150         | °C   |
| $T_{STG}$ | Storage Temperature         | -55 to +150 | °C   |

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

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

#### OFF CHARACTERISTICS

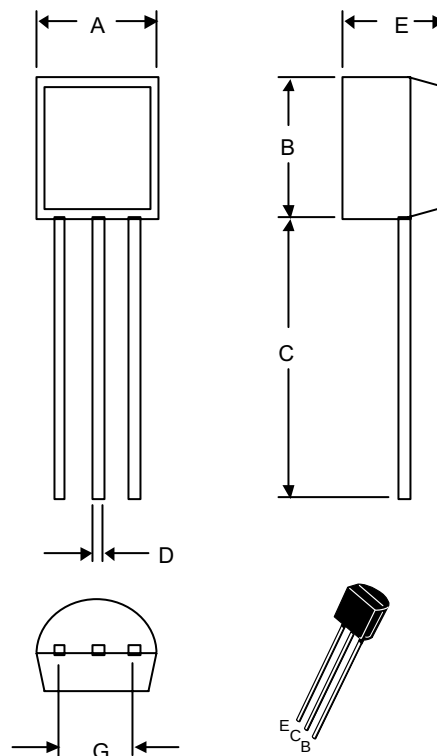
|               |                                                                  |     |     |     |         |
|---------------|------------------------------------------------------------------|-----|-----|-----|---------|
| $V_{(BR)CBO}$ | Collector-Base Breakdown Voltage<br>( $I_C=100\mu A$ , $I_B=0$ ) | 60  | --- | --- | Vdc     |
| $V_{(BR)CEO}$ | Collector-Emitter Breakdown Voltage<br>( $I_C=10mA$ , $I_B=0$ )  | 50  | --- | --- | Vdc     |
| $V_{(BR)EBO}$ | Emitter-Base Breakdown Voltage<br>( $I_E=10\mu A$ , $I_C=0$ )    | 5.0 | --- | --- | Vdc     |
| $I_{CBO}$     | Collector-Base Cutoff Current<br>( $V_{CB}=60Vdc$ , $I_E=0$ )    | --- | --- | 0.1 | $\mu A$ |
| $I_{EBO}$     | Emitter-Base Cutoff Current<br>( $V_{EB}=5.0Vdc$ , $I_C=0$ )     | --- | --- | 0.1 | $\mu A$ |

#### ON CHARACTERISTICS

|               |                                                                                     |     |     |      |     |
|---------------|-------------------------------------------------------------------------------------|-----|-----|------|-----|
| $h_{FE}$      | Forward Current Transfer ratio*<br>( $I_C=2.0mA$ , $V_{CE}=6.0Vdc$ )                | 70  | --- | 700  | --- |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage<br>( $I_C=100mA$ , $I_B=10mA$ )                | --- | --- | 0.25 | Vdc |
| $f_T$         | Transition Frequency<br>( $V_{CE}=10Vdc$ , $I_C=1.0mA$ )                            | 80  | --- | ---  | MHz |
| $C_{ob}$      | Collector Output Capacitance<br>( $V_{CB}=10Vdc$ , $I_E=0$ , $f=1.0MHz$ )           | --- | 2.0 | 3.5  | pF  |
| NF            | Noise Figure<br>( $V_{CE}=6.0Vdc$ , $I_C=0.1mA$ ,<br>$f=1.0KHz$ , $R_g=10K\Omega$ ) | --- | --- | 10   | dB  |

\*  $h_{FE}$  rank / O: 70-140, Y:120-240, G:200-400, L:300-700

### TO-92



| DIM | INCHES |      | MM    |       | NOTE |
|-----|--------|------|-------|-------|------|
|     | MIN    | MAX  | MIN   | MAX   |      |
| A   | .170   | .190 | 4.33  | 4.83  |      |
| B   | .170   | .190 | 4.30  | 4.83  |      |
| C   | .550   | .590 | 13.97 | 14.97 |      |
| D   | .010   | .020 | 0.36  | 0.56  |      |
| E   | .130   | .160 | 3.30  | 3.96  |      |
| G   | .096   | .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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