



Micro Commercial Components

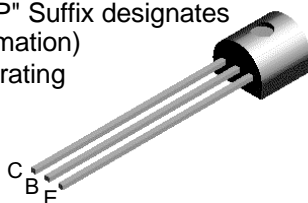


Micro Commercial Components
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S9014-B
S9014-C
S9014-D

Features

- TO-92 Plastic-Encapsulate Transistors
- Capable of 0.4Watts($T_{amb}=25^{\circ}C$) of Power Dissipation.
- Collector-current 0.1A
- Collector-base Voltage 50V
- Operating and storage junction temperature range: $-55^{\circ}C$ to $+150^{\circ}C$
- Marking : S9014
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1



Electrical Characteristics @ 25°C Unless Otherwise Specified

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

OFF CHARACTERISTICS

| | | | | |
|---------------|--|-----|-----|---------|
| $V_{(BR)CBO}$ | Collector-Base Breakdown Voltage ($I_C=100\mu A$, $I_E=0$) | 50 | --- | Vdc |
| $V_{(BR)CEO}$ | Collector-Emitter Breakdown Voltage ($I_C=0.1mA$, $I_B=0$) | 45 | --- | Vdc |
| $V_{(BR)EBO}$ | Emitter-Base Breakdown Voltage ($I_E=100\mu A$, $I_C=0$) | 5.0 | --- | Vdc |
| I_{CBO} | Collector Cutoff Current ($V_{CB}=50Vdc$, $I_E=0$) | --- | 0.1 | μA |
| I_{CEO} | Collector Cutoff Current ($V_{CE}=35Vdc$, $I_B=0$) | --- | 0.1 | μA |
| I_{EBO} | Emitter Cutoff Current ($V_{EB}=3.0Vdc$, $I_C=0$) | --- | 0.1 | μA |

ON CHARACTERISTICS

| | | | | |
|---------------|---|-----|------|-----|
| h_{FE} | DC Current Gain ($I_C=1.0mA$, $V_{CE}=5.0Vdc$) | 60 | 1000 | --- |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage ($I_C=100mA$, $I_B=5.0mA$) | --- | 0.3 | Vdc |
| $V_{BE(sat)}$ | Base-Emitter Saturation Voltage ($I_C=100mA$, $I_B=5.0mA$) | --- | 1.0 | Vdc |

SMALL-SIGNAL CHARACTERISTICS

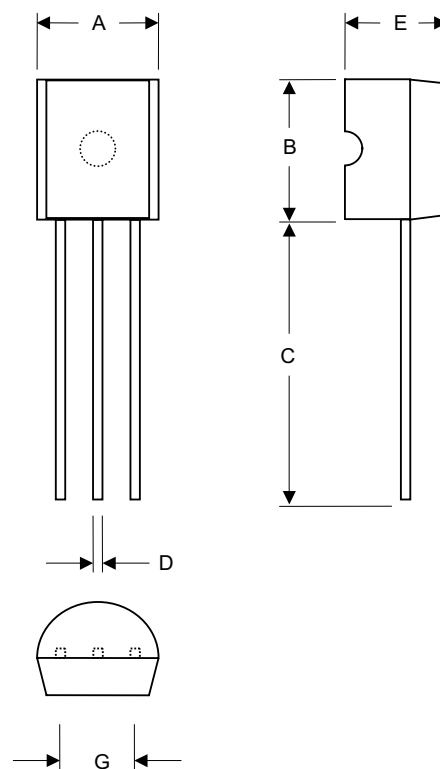
| | | | | |
|-------|--|-----|-----|-----|
| f_T | Transistor Frequency ($I_C=10mA$, $V_{CE}=5.0Vdc$, $f=30MHz$) | 150 | --- | MHz |
|-------|--|-----|-----|-----|

CLASSIFICATION OF h_{FE}

| Rank | B | C | D |
|-------|---------|---------|----------|
| Range | 100-300 | 200-600 | 400-1000 |

NPN Silicon Transistors

TO-92



DIMENSIONS

| 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 | |



TM

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Ordering Information :

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

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