

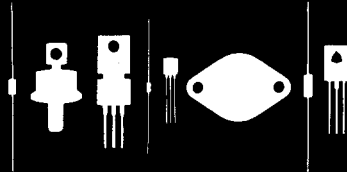
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145 Adams Avenue
Hauppauge, New York 11788



2N5249,A T0-92 (ECB)
PN5249,A T0-92 (EBC)

NPN SILICON TRANSISTORS

JEDEC T0-92 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N5249 series types are NPN silicon transistors manufactured by the epitaxial planar process designed for high gain amplifier applications.

MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise noted)

| | SYMBOL | | UNIT |
|--|----------------|-------------|------------------|
| Collector-Base Voltage | V_{CB0} | 70 | V |
| Collector-Emitter Voltage | V_{CE0} | 50 | V |
| Emitter-Base Voltage | V_{EB0} | 5.0 | V |
| Collector Current | I_C | 100 | mA |
| Power Dissipation | P_D | 625 | mW |
| Operating and Storage Junction Temperature | T_J, T_{STG} | -65 TO +150 | $^\circ\text{C}$ |

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted)

| SYMBOL | TEST CONDITIONS | MIN | MAX | UNIT |
|---------------|---|-----|---------|---------------|
| I_{CB0} | $V_{CB}=50\text{V}$ | | 30 | nA |
| I_{CB0} | $V_{CB}=50\text{V}, T_A=100^\circ\text{C}$ | | 10 | μA |
| I_{CES} | $V_{CB}=50\text{V}$ | | 30 | nA |
| I_{EBO} | $V_{EB}=5.0\text{V}$ | | 50 | nA |
| BV_{CB0} | $I_C=10\mu\text{A}$ | 70 | | V |
| BV_{CE0} | $I_C=10\text{mA}$ | 50 | | V |
| BV_{EBO} | $I_E=10\mu\text{A}$ | 5.0 | | V |
| $V_{CE(SAT)}$ | $I_C=10\text{mA}, I_B=1.0\text{mA}$ | | 0.125 | V |
| $V_{BE(ON)}$ | $V_{CE}=10\text{V}, I_C=2.0\text{mA}$ | 0.5 | 0.9 | V |
| $V_{BE(SAT)}$ | $I_C=10\text{mA}, I_B=1.0\text{mA}$ | | 0.78 | V |
| h_{FE} | $V_{CE}=5.0\text{V}, I_C=2.0\text{mA}$ | 400 | 800 | |
| h_{FE} | $V_{CE}=5.0\text{V}, I_C=100\mu\text{A}$ | | 350 TYP | |
| h_{fe} | $V_{CE}=5.0\text{V}, I_C=2.0\text{mA}, f=1.0\text{kHz}$ | 400 | 1200 | |
| C_{ob} | $V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$ | | 4.0 | pF |
| NF | $V_{CE}=5.0\text{V}, I_C=100\mu\text{A}, R_G=5.0\text{k}\Omega, f=1.0\text{kHz}, \text{BW}=15.7\text{kHz}$ (2N5249A, PN5249A only) | | 3.0 | dB |

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145 Adams Avenue
Hauppauge, NY 11788 USA
Tel: (631) 435-1110 • Fax: (631) 435-1824
www.centralsemi.com