

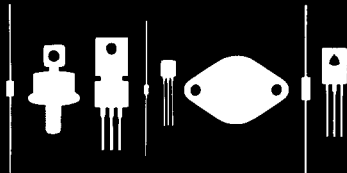
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145 Adams Avenue
Hauppauge, New York 11788



2N524 THRU 2N527

PNP GERMANIUM TRANSISTORS

JEDEC TO-5 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N524 series types are germanium PNP transistors designed for low frequency medium power amplifier and switching applications.

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

| | SYMBOL | | UNIT |
|---------------------------|-----------------|-------------|---------------------------|
| Collector-Base Voltage | V_{CB0} | 45 | V |
| Collector-Emitter Voltage | V_{CER} | 30 | V |
| Emitter-Base Voltage | V_{EB0} | 15 | V |
| Collector Current | I_C | 500 | mA |
| Emitter Current | I_E | 500 | mA |
| Power Dissipation | P_D | 225 | mW |
| Operating and Storage | | | |
| Junction Temperature | T_J T_{STG} | -65 to +100 | $^\circ\text{C}$ |
| Thermal Resistance | θ_{JA} | 33.3 | $^\circ\text{C}/\text{W}$ |

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

| SYMBOL | TEST CONDITIONS | MIN | MAX | UNIT |
|---------------|--|-----|-----|---------------|
| I_{CB0} | $V_{CB}=30\text{V}$ | | 10 | μA |
| I_{EB0} | $V_{EB}=15\text{V}$ | | 10 | μA |
| BV_{CB0} | $I_C=200\mu\text{A}$ | 45 | | V |
| BV_{CER} | $I_C=600\mu\text{A}$, $R_{BE}=10\text{k}\Omega$ | 30 | | V |
| $V_{CE(SAT)}$ | $I_C=20\text{mA}$, $I_B=2.0\text{mA}$ (2N524) | | 130 | mV |
| $V_{CE(SAT)}$ | $I_C=20\text{mA}$, $I_B=1.33\text{mA}$ (2N525) | | 130 | mV |
| $V_{CE(SAT)}$ | $I_C=20\text{mA}$, $I_B=1.0\text{mA}$ (2N526) | | 130 | mV |
| $V_{CE(SAT)}$ | $I_C=20\text{mA}$, $I_B=0.67\text{mA}$ (2N527) | | 130 | mV |
| $V_{BE(ON)}$ | $V_{CE}=1.0\text{V}$, $I_C=20\text{mA}$ (2N524) | 220 | 320 | mV |
| $V_{BE(ON)}$ | $V_{CE}=1.0\text{V}$, $I_C=20\text{mA}$ (2N525) | 200 | 300 | mV |
| $V_{BE(ON)}$ | $V_{CE}=1.0\text{V}$, $I_C=20\text{mA}$ (2N526) | 190 | 280 | mV |
| $V_{BE(ON)}$ | $V_{CE}=1.0\text{V}$, $I_C=20\text{mA}$ (2N527) | 180 | 260 | mV |
| h_{FE} | $V_{CE}=1.0\text{V}$, $I_C=20\text{mA}$ (2N524) | 25 | 42 | |
| h_{FE} | $V_{CE}=1.0\text{V}$, $I_C=20\text{mA}$ (2N525) | 34 | 65 | |
| h_{FE} | $V_{CE}=1.0\text{V}$, $I_C=20\text{mA}$ (2N526) | 53 | 90 | |
| h_{FE} | $V_{CE}=1.0\text{V}$, $I_C=20\text{mA}$ (2N527) | 72 | 121 | |
| C_{ob} | $V_{CB}=5.0\text{V}$, $I_C=0$, $f=1.0\text{MHz}$ | 5.0 | 40 | pF |
| NF | $V_{CB}=5.0\text{V}$, $R_G=1.0\text{k}\Omega$, $BW=1.0\text{Hz}$, $f=1.0\text{kHz}$ | - | 15 | db |

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