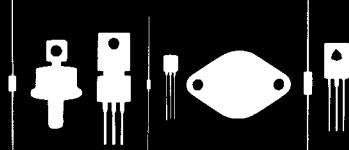


Central
Semiconductor Corp.

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145 Adams Avenue
Hauppauge, New York 11788



2N4123 2N4124 NPN
2N4125 2N4126 PNP

COMPLEMENTARY SILICON TRANSISTORS

JEDEC TO-92 CASE (EBC)

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N4123 series types are complementary silicon small signal transistors manufactured by the epitaxial planar process designed for amplifier and switching applications.

MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

| | SYMBOL | 2N4123 | 2N4124 | 2N4125 | 2N4126 | UNIT |
|--|-----------------------------------|--------|-------------|--------|--------|-------|
| Collector-Base Voltage | V _{CB0} | 40 | 30 | 30 | 25 | V |
| Collector-Emitter Voltage | V _{CEO} | 30 | 25 | 30 | 25 | V |
| Emitter-Base Voltage | V _{EB0} | 5.0 | 5.0 | 4.0 | 4.0 | V |
| Collector Current | I _C | 200 | 200 | 200 | 200 | mA |
| Power Dissipation | P _D | 625 | 625 | 625 | 625 | mW |
| Power Dissipation (T _C =25°C) | P _D | 1.5 | 1.5 | 1.5 | 1.5 | W |
| Operating and Storage Junction Temperature | T _J , T _{STG} | | -65 TO +150 | | | °C |
| Thermal Resistance | θ _{JA} | | 0.2 | | | °C/mW |
| Thermal Resistance | θ _{JC} | | 83.3 | | | °C/W |

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

| SYMBOL | TEST CONDITIONS | 2N4123 | | 2N4124 | | 2N4125 | | 2N4126 | | UNIT |
|----------------------|--|--------|------|--------|------|--------|------|--------|------|------|
| | | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | |
| I _{CB0} | V _{CB} =20V | | 50 | | 50 | | 50 | | 50 | nA |
| I _{EB0} | V _{EB} =3.0V | | 50 | | 50 | | 50 | | 50 | nA |
| BV _{CB0} | I _C =10μA | 40 | | 30 | | 30 | | 25 | | V |
| BV _{CEO} | I _C =1.0mA | 30 | | 25 | | 30 | | 25 | | V |
| BV _{EB0} | I _E =10μA | 5.0 | | 5.0 | | 4.0 | | 4.0 | | V |
| V _{CE(SAT)} | I _C =50mA, I _B =5.0mA | | 0.3 | | 0.3 | | 0.4 | | 0.4 | V |
| V _{BE(SAT)} | I _C =50mA, I _B =5.0mA | | 0.95 | | 0.95 | | 0.95 | | 0.95 | V |
| h _{FE} | V _{CE} =1.0V, I _C =2.0mA | 50 | 150 | 120 | 360 | 50 | 150 | 120 | 360 | |
| h _{FE} | V _{CE} =1.0V, I _C =50mA | 25 | | 60 | | 25 | | 60 | | |
| h _{fe} | V _{CE} =10V, I _C =2.0mA, f=1.0kHz | 50 | 200 | 120 | 480 | 50 | 200 | 120 | 480 | |
| f _T | V _{CE} =20V, I _C =10mA, f=100MHz | 250 | | 300 | | 200 | | 250 | | MHz |
| C _{ob} | V _{CB} =5.0V, I _E =0, f=100kHz | | 4.0 | | 4.0 | | 4.5 | | 4.5 | pF |
| C _{ib} | V _{EB} =0.5V, I _C =0, f=100kHz | | 8.0 | | 8.0 | | 10 | | 10 | pF |
| NF | V _{CE} =5.0V, I _C =100μA, R _S =1.0kΩ, f=10Hz to 15.7kHz | | 6.0 | | 5.0 | | 5.0 | | 4.0 | dB |

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