

isc Silicon NPN RF Transistor
2SC3124
DESCRIPTION

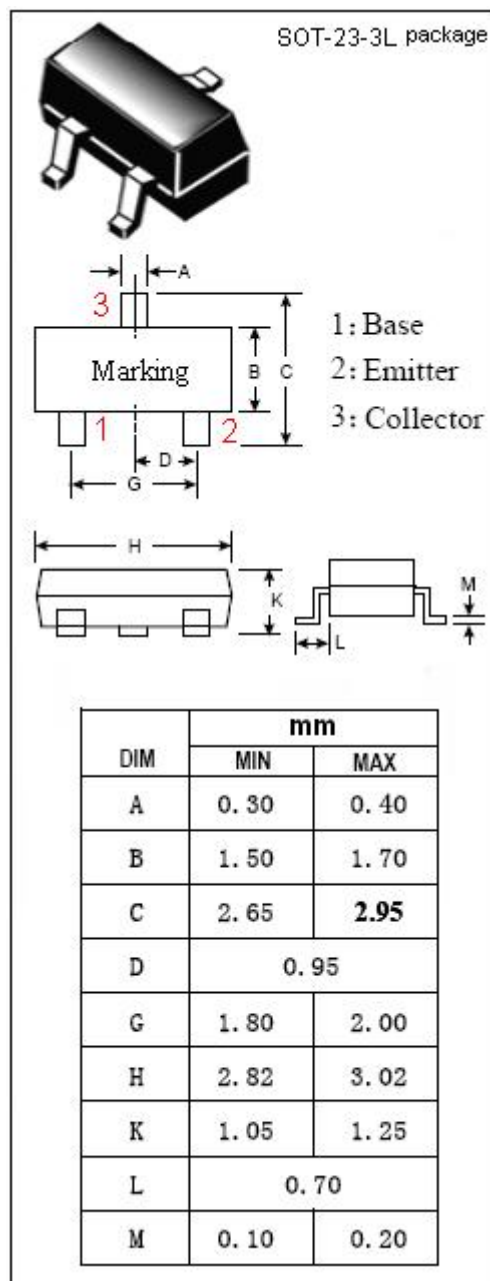
- High Gain Bandwidth Product
 $f_T = 1100$ MHz TYP.
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for TV tuner ,VHF oscillator applications.

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|---|---------|------------------|
| V_{CBO} | Collector-Base Voltage | 30 | V |
| V_{CEO} | Collector-Emitter Voltage | 15 | V |
| V_{EBO} | Emitter-Base Voltage | 3 | V |
| I_C | Collector Current-Continuous | 50 | mA |
| I_B | Base Current-Continuous | 25 | mA |
| P_C | Collector Power Dissipation @ $T_c=25^\circ\text{C}$ | 0.15 | W |
| T_J | Junction Temperature | 125 | $^\circ\text{C}$ |
| T_{stg} | Storage Temperature Range | -55~125 | $^\circ\text{C}$ |



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|-----------------------------------|-------------------------------------|---|-----|------|-----|------|
| V _{(BR)CEO} | Collector-Emitter Breakdown Voltage | I _C = 1mA ; I _B = 0 | 15 | | | V |
| I _{CBO} | Collector Cutoff Current | V _{CB} = 15V; I _E = 0 | | | 0.1 | μ A |
| I _{EBO} | Emitter Cutoff Current | V _{EB} = 3V; I _C = 0 | | | 1.0 | μ A |
| h _{FE} | DC Current Gain | I _C = 8mA ; V _{CE} = 3V | 40 | | 200 | |
| f _T | Current-Gain—Bandwidth Product | I _C = 8mA ; V _{CE} = 10V | 650 | 1100 | | MHz |
| C _{OB} | Reverse Transfer Capacitance | I _E = 0 ; V _{CB} = 10V; f= 1.0MHz | | 0.9 | 1.3 | pF |
| τ _{bb'} • C _C | Base Time Constant | V _{CB} = 10V, I _C = 8 mA, f= 30 MHz | | 7 | 12 | ps |

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