# isc Silicon NPN RF Transistor 2SC2757

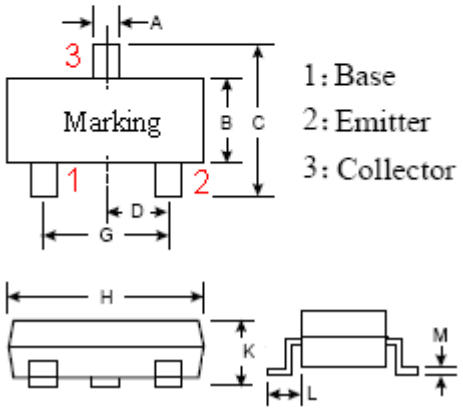
## DESCRIPTION

- Low Noise
- High Current-Gain Bandwidth Product

## APPLICATIONS

- Designed for use in VHF RF amplifier, local oscillator, mixer.

SOT-23-3L package




| DIM | mm MIN | mm MAX |
|---|---|---|
| A | 0.30 | 0.40 |
| B | 1.50 | 1.70 |
| C | 2.65 | 2.95 |
| D | 0.95 | |
| G | 1.80 | 2.00 |
| H | 2.82 | 3.02 |
| K | 1.05 | 1.25 |
| L | 0.70 | |
| M | 0.10 | 0.20 |

## ABSOLUTE MAXIMUM RATINGS($T_a$=25℃)

| SYMBOL | PARAMETER | VALUE | UNIT |
|---|---|---|---|
| $V_{CBO}$ | Collector-Base Voltage | 30 | V |
| $V_{CEO}$ | Collector-Emitter Voltage | 15 | V |
| $V_{EBO}$ | Emitter-Base Voltage | 5 | V |
| $I_C$ | Collector Current-Continuous | 50 | mA |
| $P_C$ | Collector Power Dissipation @$T_C$=25℃ | 0.15 | W |
| $T_J$ | Junction Temperature | 125 | ℃ |
| $T_{stg}$ | Storage Temperature Range | -55~125 | ℃ |

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## ELECTRICAL CHARACTERISTICS

**$T_C$=25℃ unless otherwise specified**

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|---|---|---|---|---|---|---|
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C$= 10mA ; $I_B$= 1mA | | | 0.5 | V |
| $I_{CBO}$ | Collector Cutoff Current | $V_{CB}$= 12V; $I_E$= 0 | | | 0.1 | μA |
| $h_{FE}$ | DC Current Gain | $I_C$= 5mA ; $V_{CE}$= 10V | 60 | | 240 | |
| $f_T$ | Current-Gain—Bandwidth Product | $I_C$= 5mA ; $V_{CE}$= 10V | 800 | 1100 | | MHz |
| $C_{OB}$ | Output Capacitance | $I_E$= 0 ; $V_{CB}$= 10V;f= 1.0MHz | | | 1.5 | pF |
| $r_{bb'}$ • CC | Base Time Constant | $I_C$= 5mA ; $V_{CB}$= 10V;f= 31.9MHz | | 10 | 15 | ps |

◆ **$h_{FE}$ Classifications**

| Marking | T32 | T33 | T34 |
|---|---|---|---|
| $h_{FE}$ | 60-120 | 90-180 | 120-240 |