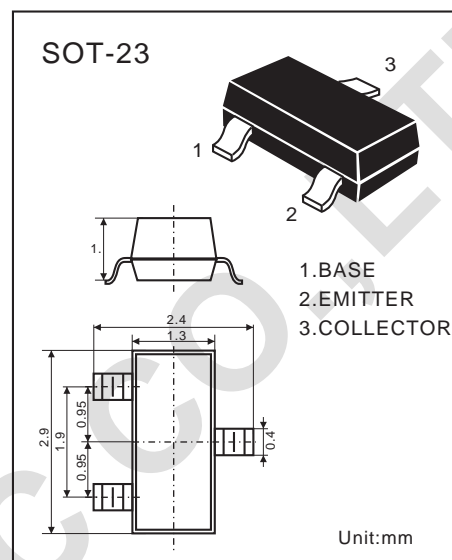


NPN EPITAXIAL SILICON TRANSISTOR

AM/FM IF AMPLIFIER, LOCAL OSCILATOR OF FM/VHF TUNER

- High Current Gain Bandwidth
- Product $f_T=1100\text{MHz}$



ABSOLUTE MAXIMUM RATINGS

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

| Characteristic | Symbol | Rating | Unit |
|--|-----------|---------|------------------|
| Collector-Base Voltage | V_{CB0} | 30 | V |
| Collector-Emitter Voltage | V_{CEO} | 15 | V |
| Emitter-Base Voltage | V_{EBO} | 5 | V |
| Collector Current | I_C | 50 | mA |
| Collector Dissipation $T_a=25^\circ\text{C}^*$ | P_D | 225 | mW |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | -55~150 | $^\circ\text{C}$ |

Electrical Characteristics

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

| Parameter | Symbol | MIN. | TYP. | MAX. | Unit | Condition |
|--------------------------------------|---------------|------|------|------|------|--|
| Collector-Base Breakdown Voltage | BV_{CB0} | 30 | | | V | $I_C=100\mu\text{A}$ $I_E=0$ |
| Collector-Emitter Breakdown Voltage# | BV_{CEO} | 15 | | | V | $I_C=1\text{mA}$ $I_B=0$ |
| Emitter-Base Breakdown Voltage | BV_{EBO} | 5 | | | V | $I_E=100\mu\text{A}$ $I_C=0$ |
| Collector-Base Cutoff Current | I_{CB0} | | | 50 | nA | $V_{CB}=12\text{V}$, $V_E=0$ |
| Emitter-Base Cutoff Current | I_{EBO} | | | 50 | nA | $V_{CB}=3\text{V}$, $I_C=0$ |
| DC Current Gain | H_{FE} | 28 | 100 | 300 | | $V_{CB}=5\text{V}$, $I_C=1\text{mA}$ |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | | | 0.5 | V | $I_C=10\text{mA}$, $I_B=1\text{mA}$ |
| Collector-Base Capacitance | C_{ob} | | 1.3 | 1.7 | PF | $V_{CB}=10\text{V}$, $I_E=10$, $f=1\text{MHz}$ |
| Collector-Gain-Bandwidth Product | f_T | 700 | 1100 | | MHz | $V_{CE}=5\text{V}$, $I_C=5\text{mA}$ |

*Total Device Dissipation: $FR=1 \times 0.75 \times 0.062$ in Board Derate 25°C

#Pulse Test: Pulse Width 300uS Duty cycle 2%

DEVICE MARKING:

2SC3734LT1=J8