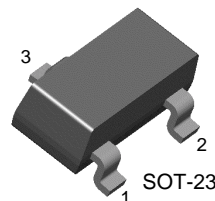


KST2907A

KST2907A

General Purpose Transistor



1. Base 2. Emitter 3. Collector

PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings $T_a=25^\circ\text{C}$ unless otherwise noted

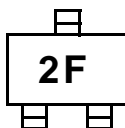
| Symbol | Parameter | Value | Units |
|-----------|-----------------------------|-------|------------------|
| V_{CBO} | Collector-Base Voltage | -60 | V |
| V_{CEO} | Collector-Emitter Voltage | -60 | V |
| V_{EBO} | Emitter-Base Voltage | -5 | V |
| I_C | Collector Current | -600 | mA |
| P_C | Collector Power Dissipation | 350 | mW |
| T_{STG} | Storage Temperature | 150 | $^\circ\text{C}$ |

Electrical Characteristics $T_a=25^\circ\text{C}$ unless otherwise noted

| Symbol | Parameter | Test Condition | Min. | Max. | Units |
|----------------------|--|--|-------------------------------|--------------|---------------|
| BV_{CBO} | Collector-Base Breakdown Voltage | $I_C = -10\mu\text{A}, I_E = 0$ | -60 | | V |
| BV_{CEO} | * Collector-Emitter Breakdown Voltage | $I_C = -10\text{mA}, I_B = 0$ | -60 | | V |
| BV_{EBO} | Emitter-Base Breakdown Voltage | $I_E = -10\mu\text{A}, I_C = 0$ | -5 | | V |
| I_{CBO} | Collector Cut-off Current | $V_{CB} = -50\text{V}, I_E = 0$ | | -0.01 | μA |
| h_{FE} | DC Current Gain | $V_{CE} = -10\text{V}, I_C = -0.1\text{mA}$ $V_{CE} = -10\text{V}, I_C = -1.0\text{mA}$ $V_{CE} = -10\text{V}, I_C = -10\text{mA}$ * $V_{CE} = -10\text{V}, I_C = -150\text{mA}$ * $V_{CE} = -10\text{V}, I_C = -500\text{mA}$ | 75 100 100 100 50 | 300 | |
| $V_{CE}(\text{sat})$ | * Collector-Emitter Saturation Voltage | $I_C = -150\text{mA}, I_B = -15\text{mA}$ $I_C = -500\text{mA}, I_B = -50\text{mA}$ | | -0.4 -1.6 | V V |
| $V_{BE}(\text{sat})$ | * Base-Emitter Saturation Voltage | $I_C = -150\text{mA}, I_B = -15\text{mA}$ $I_C = -500\text{mA}, I_B = -50\text{mA}$ | | -1.3 -2.6 | V V |
| f_T | Current Gain Bandwidth Product | $I_C = -50\text{mA}, V_{CE} = -20\text{V}$ $f = 100\text{MHz}$ | 200 | | MHz |
| C_{ob} | Output Capacitance | $V_{CB} = -10\text{V}, I_E = 0, f = 1.0\text{MHz}$ | | 8 | pF |
| t_{ON} | Turn On Time | $V_{CC} = -30\text{V}, I_C = -150\text{mA}$ $I_{B1} = -15\text{mA}$ | | 50 | ns |
| t_{OFF} | Turn Off Time | $V_{CC} = -6\text{V}, I_C = -150\text{mA}$ $I_{B1} = I_{B2} = -15\text{mA}$ | | 110 | ns |

* Pulse Test: $PW \leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$

Marking



Typical Characteristics

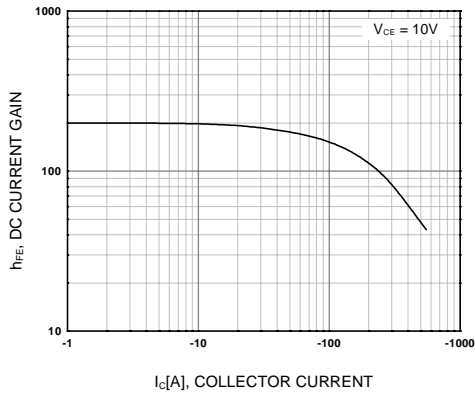


Figure 1. DC current Gain

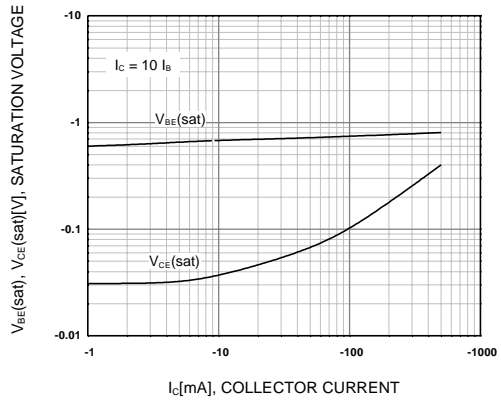


Figure 2. Collector-Emitter Saturation Voltage
Base-Emitter Saturation Voltage

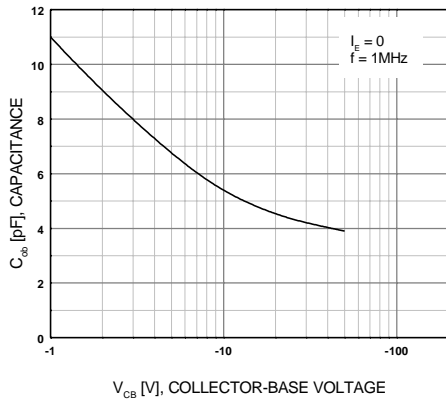


Figure 3. Output Capacitance

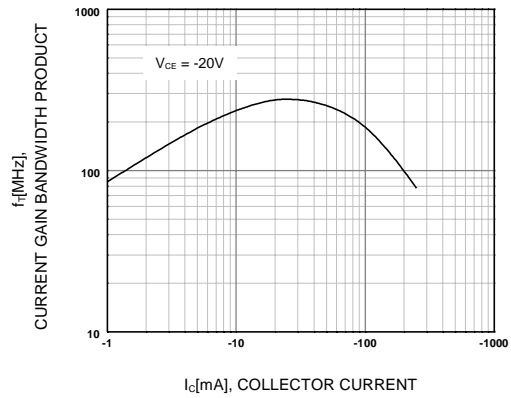
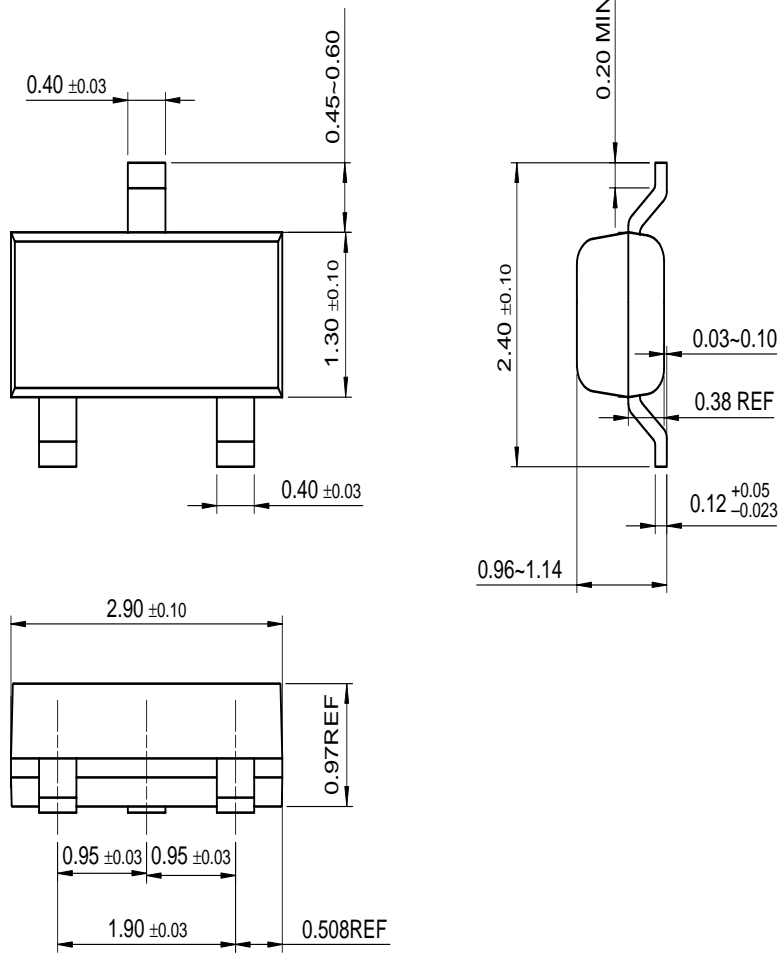


Figure 4. Current Gain Bandwidth Product

Package Dimensions

SOT-23



Dimensions in Millimeters

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