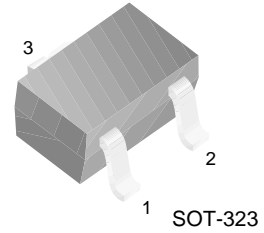


FJX2222A

FJX2222A

General Purpose Transistor

- Collector-Emitter Voltage: $V_{CE0} = 40V$
- Collector Dissipation: $P_C (max) = 325mW$



1 SOT-323
1. Base 2. Emitter 3. Collector

NPN Epitaxial Silicon Transistor

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

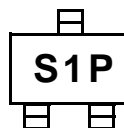
| Symbol | Parameter | Value | Units |
|-----------|-----------------------------|-------|------------|
| V_{CBO} | Collector-Base Voltage | 75 | V |
| V_{CES} | Collector-Emitter Voltage | 40 | V |
| V_{EBO} | Emitter-Base Voltage | 6 | V |
| I_C | Collector Current | 600 | mA |
| P_C | Collector Power Dissipation | 350 | mW |
| T_{STG} | Storage Temperature | 150 | $^\circ C$ |

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

| Symbol | Parameter | Test Condition | Min. | Max. | Units |
|---------------|--|--|-----------------------------|------------|---------|
| BV_{CBO} | Collector-Base Breakdown Voltage | $I_C=10\mu A, I_E=0$ | 75 | | V |
| BV_{CEO} | Collector-Emitter Breakdown Voltage | $I_C=10mA, I_B=0$ | 40 | | V |
| BV_{EBO} | Emitter-Base Breakdown Voltage | $I_E=10\mu A, I_C=0$ | 6 | | V |
| I_{CBO} | Collector Cut-off Current | $V_{CB}=60V, I_E=0$ | | 0.01 | μA |
| h_{FE} | * DC Current Gain | $V_{CE}=10V, I_C=0.1mA$ $V_{CE}=10V, I_C=1mA$ $V_{CE}=10V, I_C=10mA$ $V_{CE}=10V, I_C=150mA$ $V_{CE}=10V, I_C=500mA$ | 35 50 75 100 40 | 300 | |
| $V_{CE(sat)}$ | * Collector-Emitter Saturation Voltage | $I_C=150mA, I_B=15mA$ $I_C=500mA, I_B=50mA$ | | 0.3 1.0 | V V |
| $V_{BE(sat)}$ | * Base-Emitter Saturation Voltage | $I_C=150mA, I_B=15mA$ $I_C=500mA, I_B=50mA$ | 0.6 | 1.2 2.0 | V V |
| f_T | Current Gain Bandwidth Product | $I_C=20mA, V_{CE}=20V, f=100MHz$ | 300 | | MHz |
| C_{ob} | Output Capacitance | $V_{CB}=10V, I_E=0, f=1MHz$ | 4 | 8 | pF |
| NF | Noise Figure | $I_C=100\mu A, V_{CE}=10V$ $R_S=1K\Omega, f=1kHz$ | | 4 | dB |
| t_{ON} | Turn On Time | $V_{CC}=30V, I_C=150mA$ $V_{BE}=0.5V, I_{B1}=15mA$ | | 35 | ns |
| t_{OFF} | Turn Off Time | $V_{CC}=30V, I_C=150mA$ $I_{B1}=I_{B2}=15mA$ | | 285 | ns |

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

Marking



Typical Characteristics

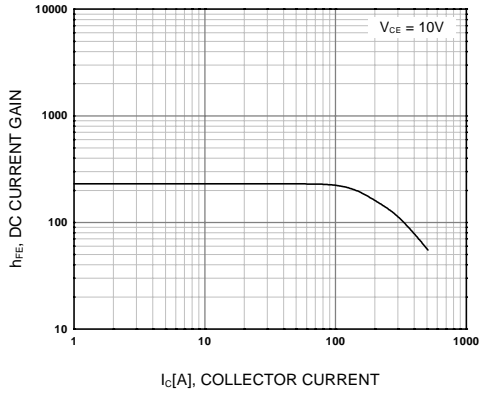
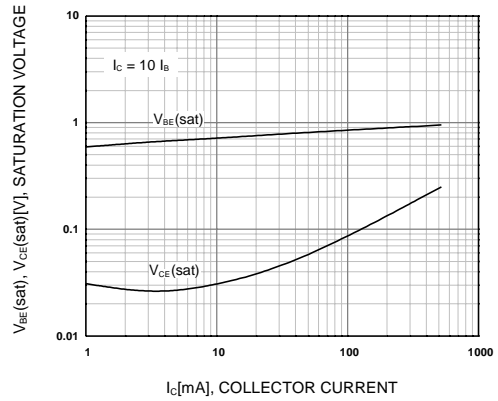


Figure 1. DC current Gain



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

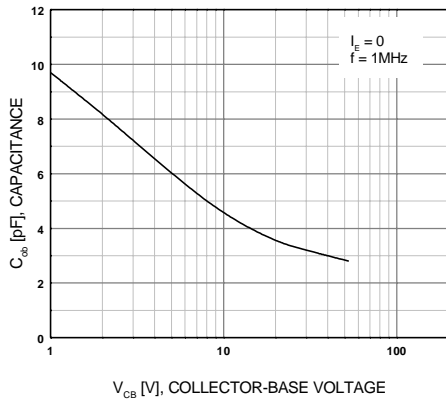


Figure 3. Output Capacitance

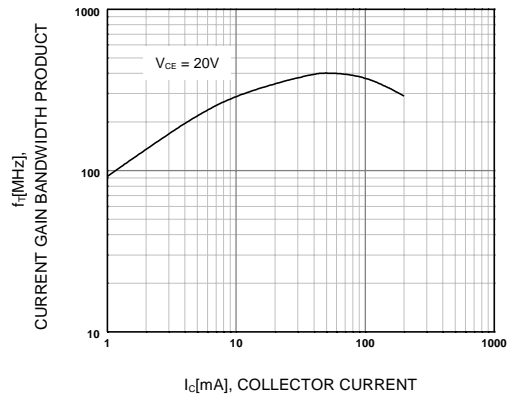
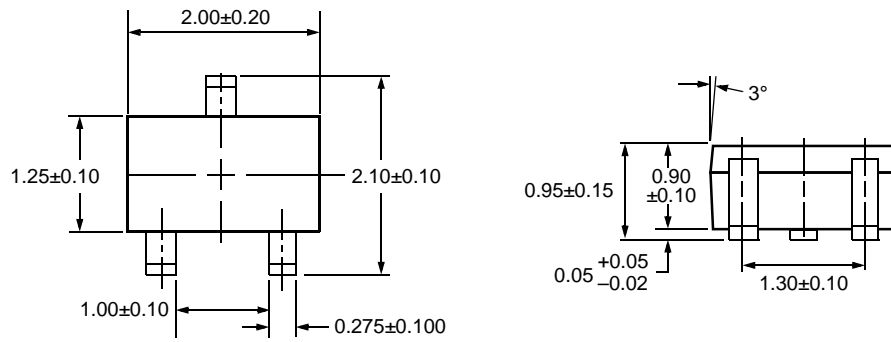


Figure 4. Current Gain Bandwidth Product

Package Dimensions

FJX2222A

SOT-323



Dimensions in Millimeters

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