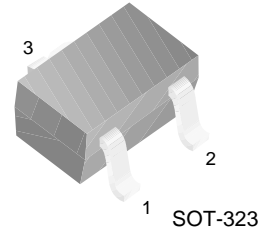


FJX2222A

FJX2222A

General Purpose Transistor

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



1. Base 2. Emitter 3. Collector

NPN Epitaxial Silicon Transistor

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

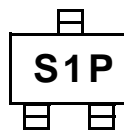
Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	75	V
V_{CES}	Collector-Emitter Voltage	40	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current	600	mA
P_C	Collector Power Dissipation	325	mW
T_{STG}	Storage Temperature	150	$^\circ C$

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	
$V_{CE} (\text{sat})$	* Collector-Emitter Saturation Voltage	$I_C=150mA, I_B=15mA$ $I_C=500mA, I_B=50mA$		0.3 1.0	V V
$V_{BE} (\text{sat})$	* 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

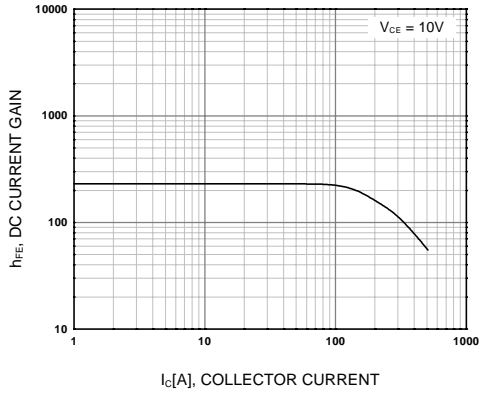


Figure 1. DC current Gain

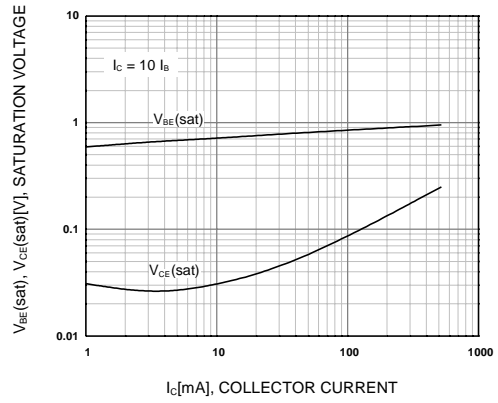


Figure 2. Collector-Base Saturation Voltage
Base-Emitter Saturation Voltage

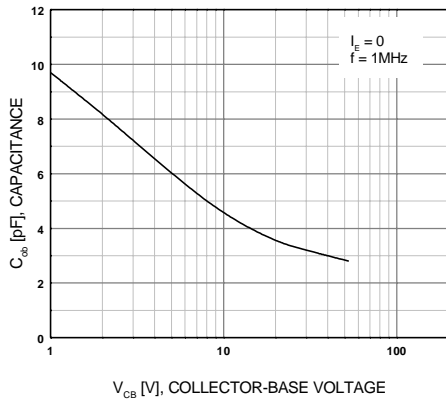


Figure 3. Output Capacitance

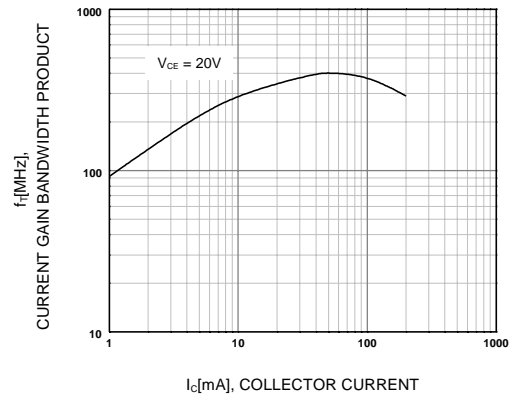
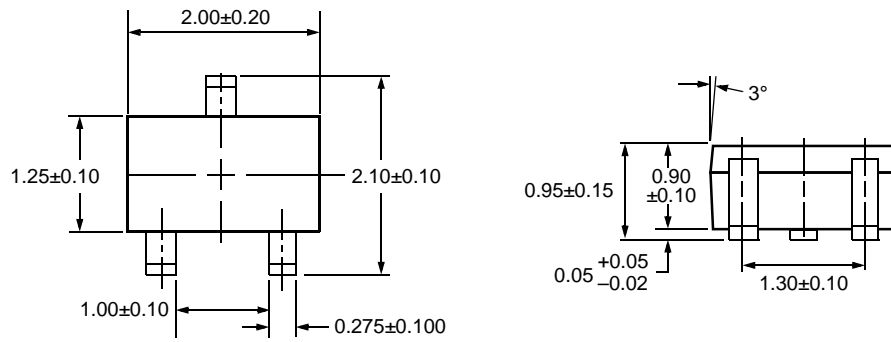


Figure 4. Current Gain Bandwidth Product

Package Dimensions

FJX2222A

SOT-323



Dimensions in Millimeters

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CoolFET™	FASTr™	MicroFET™	PowerTrench®	SuperSOT™-6
CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
DOME™	GlobalOptoisolator™	MICROWIRE™	QS™	SyncFET™
EcoSPARK™	GTO™	MSX™	QT Optoelectronics™	TinyLogic™
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EnSigna™	µC™	OCX™	RapidConfigure™	UHC™
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Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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