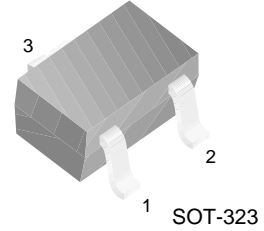


# FJX2222A

FJX2222A

## General Purpose Transistor

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



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

## NPN Epitaxial Silicon Transistor

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

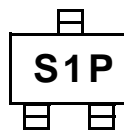
Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	75	V
$V_{CES}$	Collector-Emitter Voltage	40	V
$V_{EBO}$	Emitter-Base Voltage	6	V
$I_C$	Collector Current	600	mA
$P_C$	Collector Power Dissipation	325	mW
$T_{STG}$	Storage Temperature	150	$^\circ C$

### 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	$\mu A$
$h_{FE}$	* 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

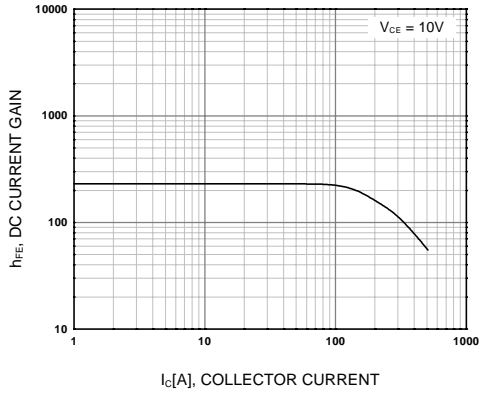


Figure 1. DC current Gain

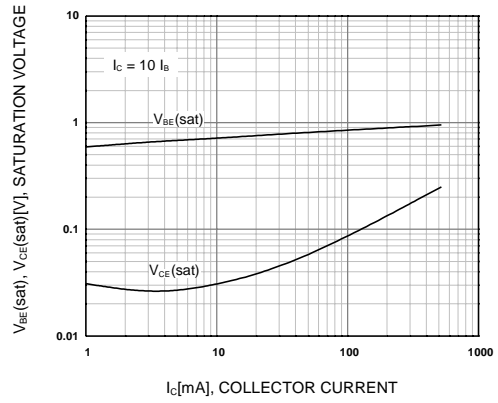


Figure 2. Collector-Base Saturation Voltage  
Base-Emitter Saturation Voltage

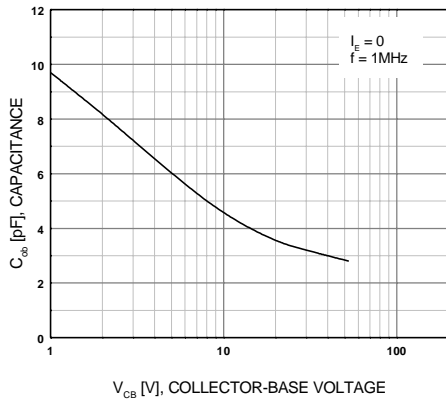


Figure 3. Output Capacitance

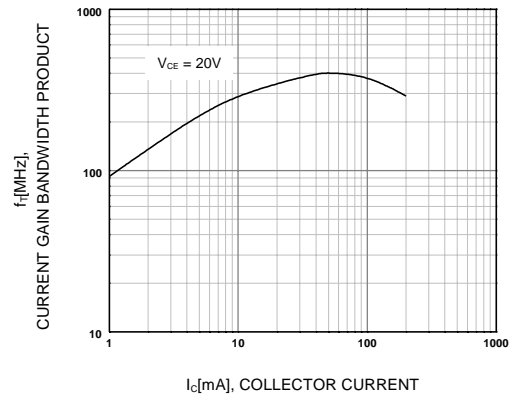
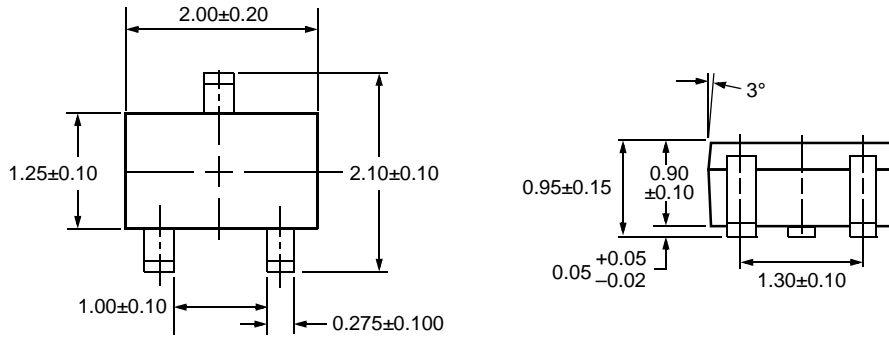


Figure 4. Current Gain Bandwidth Product

# Package Dimensions

FJX2222A

## SOT-323



Dimensions in Millimeters

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Bottomless™	FAST®	LittleFET™	Power247™	SuperSOT™-3
CoolFET™	FASTr™	MicroFET™	PowerTrench®	SuperSOT™-6
CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
DOME™	GlobalOptoisolator™	MICROWIRE™	QS™	SyncFET™
EcoSPARK™	GTO™	MSX™	QT Optoelectronics™	TinyLogic™
E <sup>2</sup> CMOS™	HiSeC™	MSXPro™	Quiet Series™	TruTranslation™
EnSigna™	µC™	OCX™	RapidConfigure™	UHC™
Across the board. Around the world.™		OCXPro™	RapidConnect™	UltraFET®
The Power Franchise™		OPTOLOGIC®	SILENT SWITCHER®	VCX™
Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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