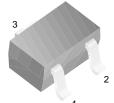


### **FJX733**

### **Low Frequency Amplifier**

- Collector-Base Voltage V<sub>CBO</sub>= -60V
  Complement to FJX945



SOT-323

1. Base 2. Emitter 3. Collector

## **PNP Epitaxial Silicon Transistor**

### **Absolute Maximum Ratings** T<sub>a</sub>=25°C unless otherwise noted

Symbol	Parameter	Ratings	Units	
V <sub>CBO</sub>	Collector-Base Voltage	-60	V	
V <sub>CEO</sub>	Collector-Emitter Voltage	-50	V	
V <sub>EBO</sub>	Emitter-Base Voltage	-5	V	
I <sub>C</sub>	Collector Current	-150	mA	
P <sub>C</sub>	Collector Power Dissipation	200	mW	
T <sub>J</sub>	Junction Temperature	150	°C	
T <sub>STG</sub>	Storage Temperature	-55 ~ 150	°C	

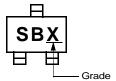
## **Electrical Characteristics** $T_a$ =25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Тур.	Max.	Units
BV <sub>CBO</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> = -100, I <sub>E</sub> =0	-60			V
BV <sub>CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = -10mA. I <sub>B</sub> =0	-50			V
BV <sub>EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = -10. I <sub>C</sub> =0	- 5			V
I <sub>CBO</sub>	Collector Cut-off Current	V <sub>CB</sub> = -25V, I <sub>E</sub> =0			-100	nA
I <sub>EBO</sub>	Emitter Cut-off Current	$V_{EB}$ = -3V, $I_{C}$ =0			-100	nA
h <sub>FE</sub>	DC Current Gain	$V_{CE}$ = -6V, $I_{C}$ = -1mA	40		700	
V <sub>CE</sub> (sat)	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -100mA, I <sub>B</sub> = -10mA		-0.18	-0.3	V
V <sub>BE</sub> (on)	Base-Emitter On Voltage	$V_{CE}$ = -6V, $I_{C}$ = -1mA	-0.50	-0.62	-0.80	V
f <sub>T</sub>	Current Gain Bandwidth Product	$V_{CE}$ = -6V, $I_{C}$ = -10mA	50	180		MHz
C <sub>ob</sub>	Output Capacitance	$V_{CB} = -10V, I_{E} = 0$ f=1MHz		2.8		pF
NF	Noise Figure	V <sub>CE</sub> = -6V, I <sub>C</sub> = -0.3mA f=1MHz, Rs=10K		6.0	20	dB

## **h**<sub>FE</sub> Classification

Classification	R	0	Y	G	L
h <sub>FE</sub>	40 ~ 80	70 ~ 140	120 ~ 240	200 ~ 400	350 ~ 700

Marking



## **Typical Characteristics**

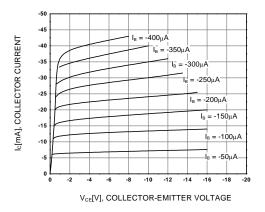


Figure 1. Static Characteristic

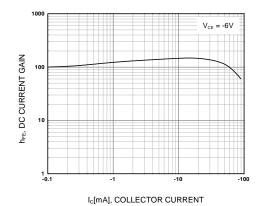


Figure 2. DC current Gain

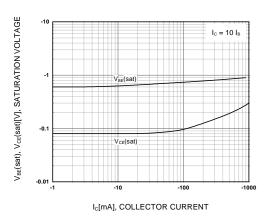


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

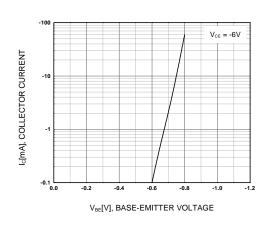


Figure 4. Base-Emitter On Voltage

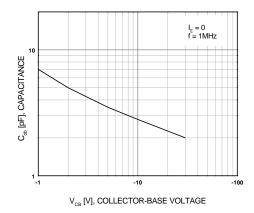


Figure 5. Collector Output Capacitance

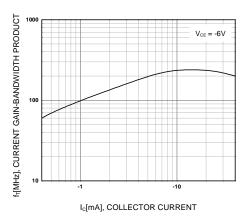
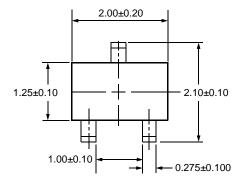


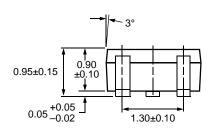
Figure 6. Current Gain Bandwidth Product

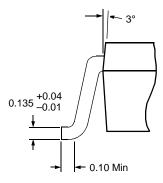
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## **Package Dimensions**

# SOT-323







Dimensions in Millimeters

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CoolFET™	FASTr™	MicroFET™	PowerTrench <sup>®</sup>	SuperSOT™-6
$CROSSVOLT^{TM}$	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™	$I^2C^{TM}$	$OCX^{TM}$	RapidConfigure™	UHC™
Across the board.	Around the world.™	OCXPro™	RapidConnect™	UltraFET <sup>®</sup>
The Power Franchise™		OPTOLOGIC <sup>®</sup>	SILENT SWITCHER®	VCX <sup>TM</sup>
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