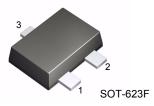
# FAIRCHILD

SEMICONDUCTOR®

## FJZ945

# Audio Frequency Amplifier & High Frequency OSC.

- Complement to FJZ733
- Collector-Base Voltage : V<sub>CBO</sub>=60V
- High Current Gain Bandwidth Product : f<sub>T</sub>=300MHz (Typ.)



1. Base 2. Emitter 3. Collector

# **NPN Epitaxial Silicon Transistor**

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

Symbol	Parameter	Value	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
c	Collector Current	150	mA
P <sub>C</sub>	Collector Power Dissipation	100	mW
TJ	Junction Temperature	150	°C
T <sub>STG</sub>	Storage Temperature	-55 ~ 150	°C

### Electrical Characteristics Ta=25°C unless otherwise noted

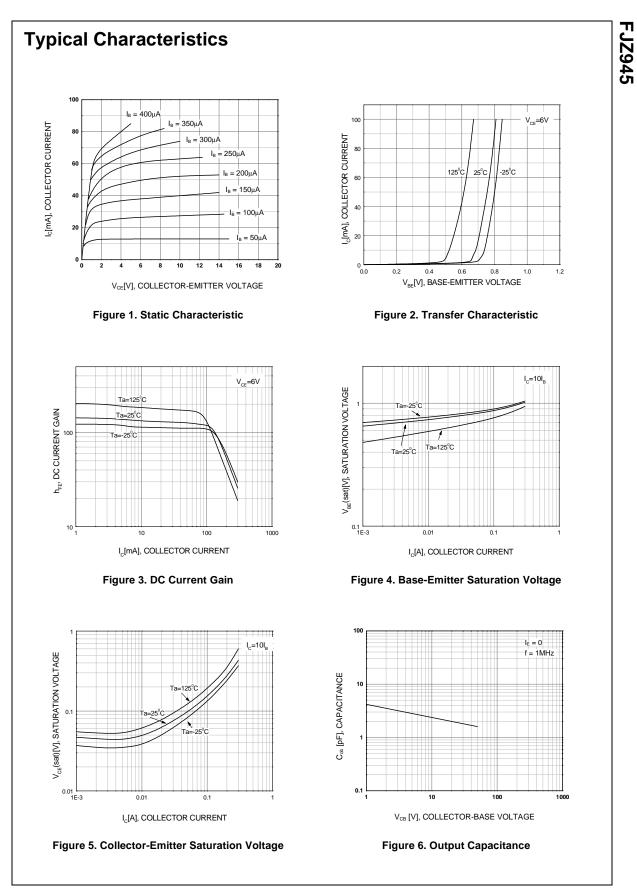
Symbol	Parameter	Test Condition	Min.	Тур.	Max.	Units
BV <sub>CBO</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> =100μA, I <sub>E</sub> =0	60			V
BV <sub>CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> =10mA, I <sub>B</sub> =0	50			V
BV <sub>EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> =10μA, I <sub>C</sub> =0	5			V
I <sub>CBO</sub>	Collector Cut-off Current	V <sub>CB</sub> =40V, I <sub>E</sub> =0			0.1	μΑ
I <sub>EBO</sub>	Emitter Cut-off Current	V <sub>EB</sub> =3V, I <sub>C</sub> =0			0.1	μΑ
h <sub>FE</sub>	DC Current Gain	V <sub>CE</sub> =6V, I <sub>C</sub> =1.0mA	70		700	
V <sub>CE</sub> (sat)	Collector-Emitter Saturation Voltage	I <sub>C</sub> =100mA, I <sub>B</sub> =10mA		0.15	0.3	V
f <sub>T</sub>	Current Gain Bandwidth Product	V <sub>CE</sub> =6V, I <sub>C</sub> =10mA		300		MHz
C <sub>ob</sub>	Output Capacitance	V <sub>CB</sub> =6V, I <sub>E</sub> =0, f=1MHz		2.5		pF
NF	Noise Figure	$V_{CE}$ =6V, I <sub>C</sub> =0.5mA f=1KHz, R <sub>S</sub> =500 $\Omega$		4.0		dB

## Thermal Characteristics T<sub>C</sub>=25°C unless otherwise noted

Symbol	Par	ameter	Max.	Units
$R_{ extsf{ heta}JA}$	Thermal Resistance, Jun	ction to Ambient	1250	°C/W
	on & Marking			
Classification	0	Y	G	L
h	70 ~ 140	120 ~ 240	200 ~ 400	350 ~ 700
h <sub>FE</sub>				

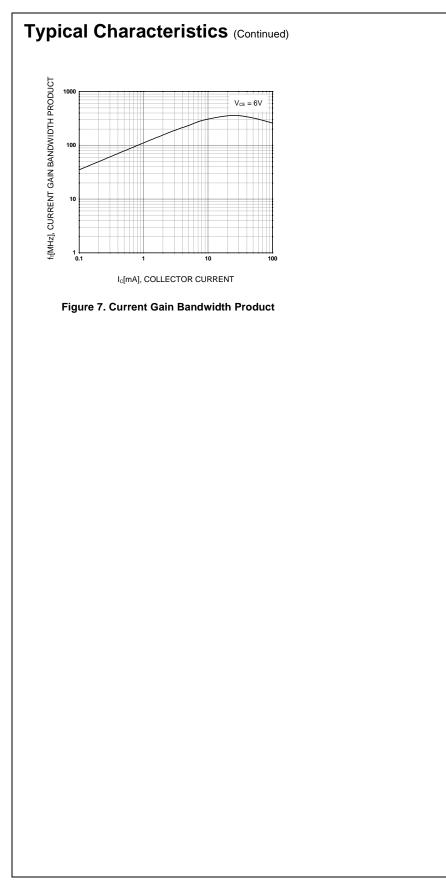
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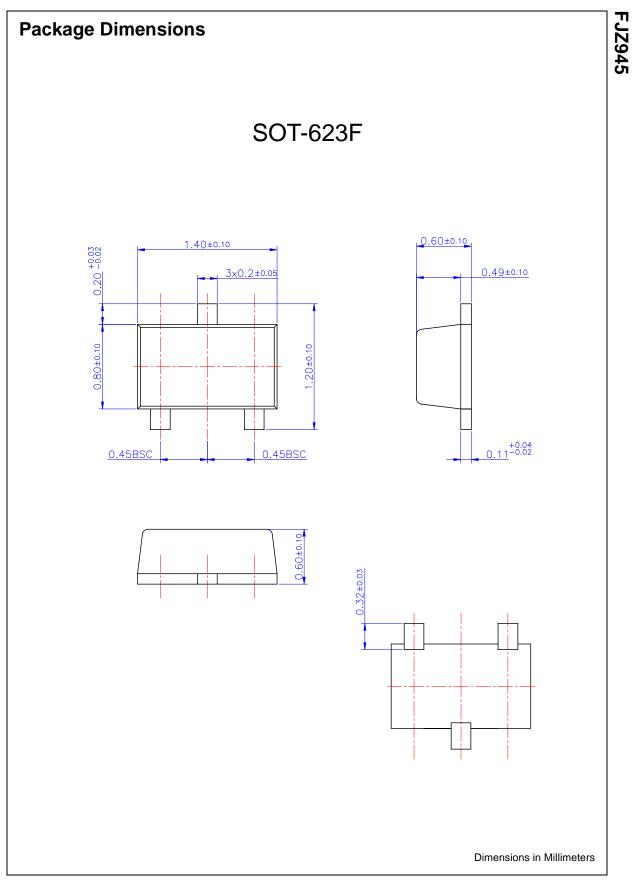


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DOME™	GlobalOptoisolator™	MicroPak™	QFET <sup>®</sup>	SuperSOT™-8
EcoSPARK™	GTO™	MICROWIRE™	QS™	SyncFET™
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EnSigna™	I <sup>2</sup> C <sup>™</sup>	MSXPro™	Quiet Series™	TINYOPTO™
FACT™	<i>i-Lo</i> ™	OCX™	RapidConfigure™	TruTranslation™
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The Power Franc	hise <sup>®</sup>	OPTOLOGIC®	SILENT SWITCHER <sup>®</sup>	UltraFET <sup>®</sup>
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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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