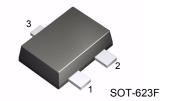


FJZ945

Audio Frequency Amplifier & High Frequency OSC.

- Complement to FJZ733
- Collector-Base Voltage : V_{CBO}=60V
- High Current Gain Bandwidth Product : f_T=300MHz (Typ.)



1. Base 2. Emitter 3. Collector

NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings Ta=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V _{CBO}	Collector-Base Voltage	60	V
V _{CEO}	Collector-Emitter Voltage	50	V
V _{EBO}	Emitter-Base Voltage	5	V
I _C	Collector Current	150	mA
P _C	Collector Power Dissipation	100	mW
TJ	Junction Temperature	150	°C
T _{STG}	Storage Temperature	-55 ~ 150	°C

Electrical Characteristics T_a=25°C unless otherwise noted

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

Thermal Characteristics $T_C=25$ °C unless otherwise noted

Symbol	Parameter	Max.	Units
$R_{\theta,JA}$	Thermal Resistance, Junction to Ambient	1250	°C/W

h_{FE} Classification & Marking

Classification	0	Υ	G	L
h _{FE}	70 ~ 140	120 ~ 240	200 ~ 400	350 ~ 700
Marking	C3	C1	C4	C5



1.2

Typical Characteristics

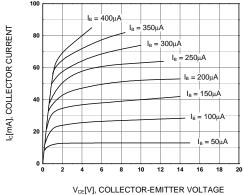
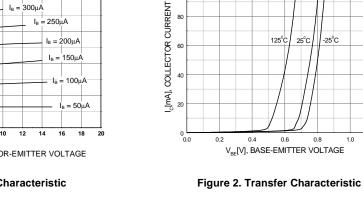


Figure 1. Static Characteristic



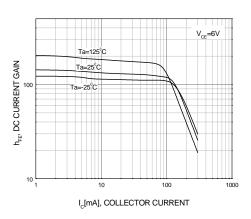


Figure 3. DC Current Gain

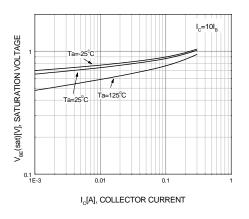


Figure 4. Base-Emitter Saturation Voltage

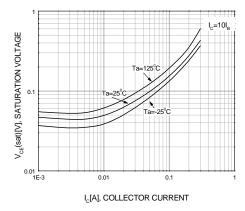


Figure 5. Collector-Emitter Saturation Voltage

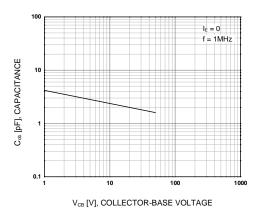


Figure 6. Output Capacitance

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Typical Characteristics (Continued)

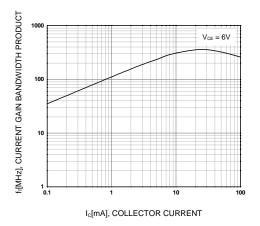
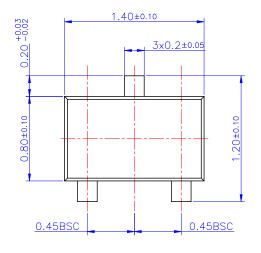
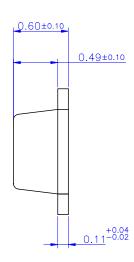


Figure 7. Current Gain Bandwidth Product

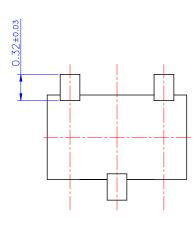
Package Dimensions

SOT-623F









Dimensions in Millimeters

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FACT™	i-Lo™	OCX^{TM}	RapidConfigure™	TruTranslation™
Across the board. Around the world.™		OCXPro™	RapidConnect™	UHC™
The Power Franch	hise [®]	OPTOLOGIC [®]	SILENT SWITCHER®	UltraFET [®]
Programmable Ad	ctive Droop™	OPTOPLANAR™	SMART START™	VCX™

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