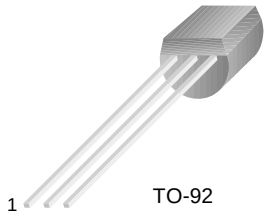
FAIRCHILD
SEMICONDUCTOR®

SS8050

2W Output Amplifier of Portable Radios in Class B Push-pull Operation.

- Complimentary to SS8550
- Collector Current: I_C=1.5A
- Collector Power Dissipation: P_C=2W (T_C=25°C)



TO-92

1. Emitter 2. Base 3. Collector

NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings T_a=25°C unless otherwise noted

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	25	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current	1.5	A
P_C	Collector Power Dissipation	1	W
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-65 ~ 150	°C

Electrical Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	I_C=100μA, I_E=0	40			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C=2mA, I_B=0	25			V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E=100μA, I_C=0	6			V
I_{CBO}	Collector Cut-off Current	V_{CB}=35V, I_E=0			100	nA
I_{EBO}	Emitter Cut-off Current	V_{EB}=6V, I_C=0			100	nA
h_{FE1} h_{FE2} h_{FE3}	DC Current Gain	V_{CE}=1V, I_C=5mA V_{CE}=1V, I_C=100mA V_{CE}=1V, I_C=800mA	45 85 40	135 160 110	300	
V_{CE} (sat)	Collector-Emitter Saturation Voltage	I_C=800mA, I_B=80mA		0.28	0.5	V
V_{BE} (sat)	Base-Emitter Saturation Voltage	I_C=800mA, I_B=80mA		0.98	1.2	V
V_{BE} (on)	Base-Emitter On Voltage	V_{CE}=1V, I_C=10mA		0.66	1	V
C_{ob}	Output Capacitance	V_{CB}=10V, I_E=0 f=1MHz		9.0		pF
f_T	Current Gain Bandwidth Product	V_{CE}=10V, I_C=50mA	100	190		MHz

h_{FE} Classification

Classification	B	C	D
h_{FE2}	85 ~ 160	120 ~ 200	160 ~ 300

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Typical Characteristics

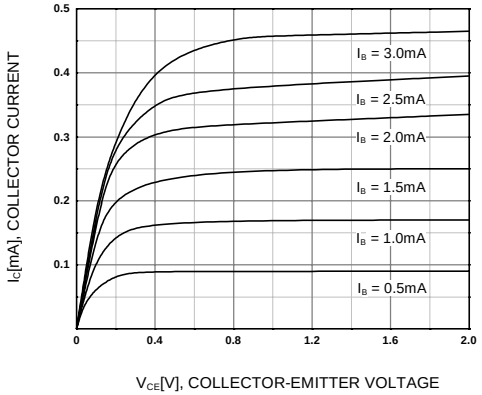

Figure 1. Static Characteristic

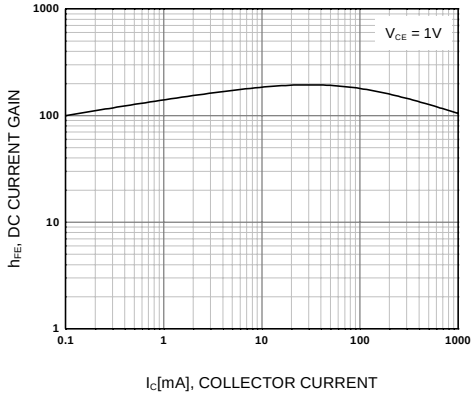

Figure 2. DC current Gain

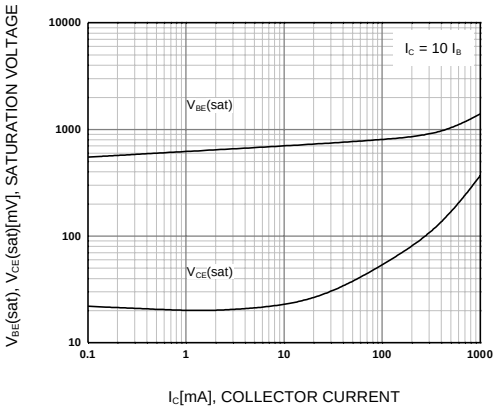

Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

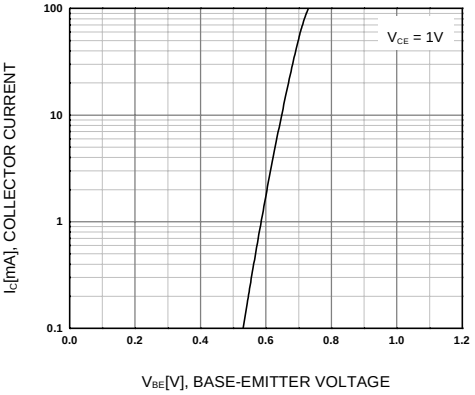

Figure 4. Base-Emitter On Voltage

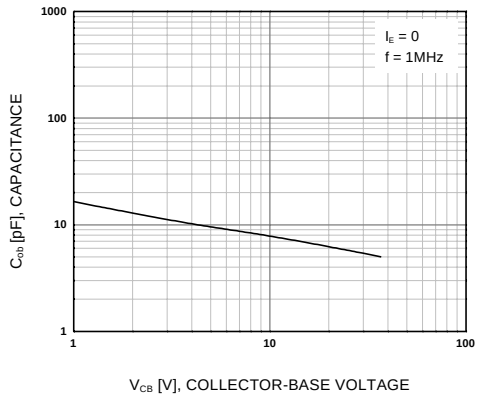

Figure 5. Collector Output Capacitance

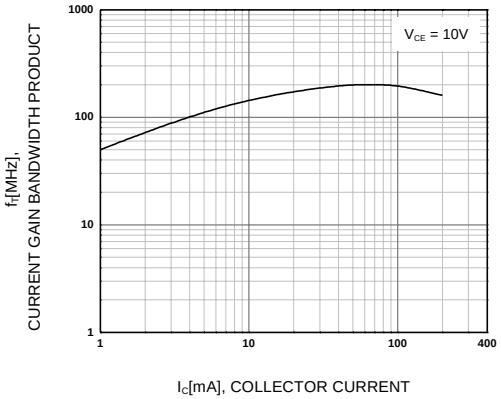

Figure 6. Current Gain Bandwidth Product

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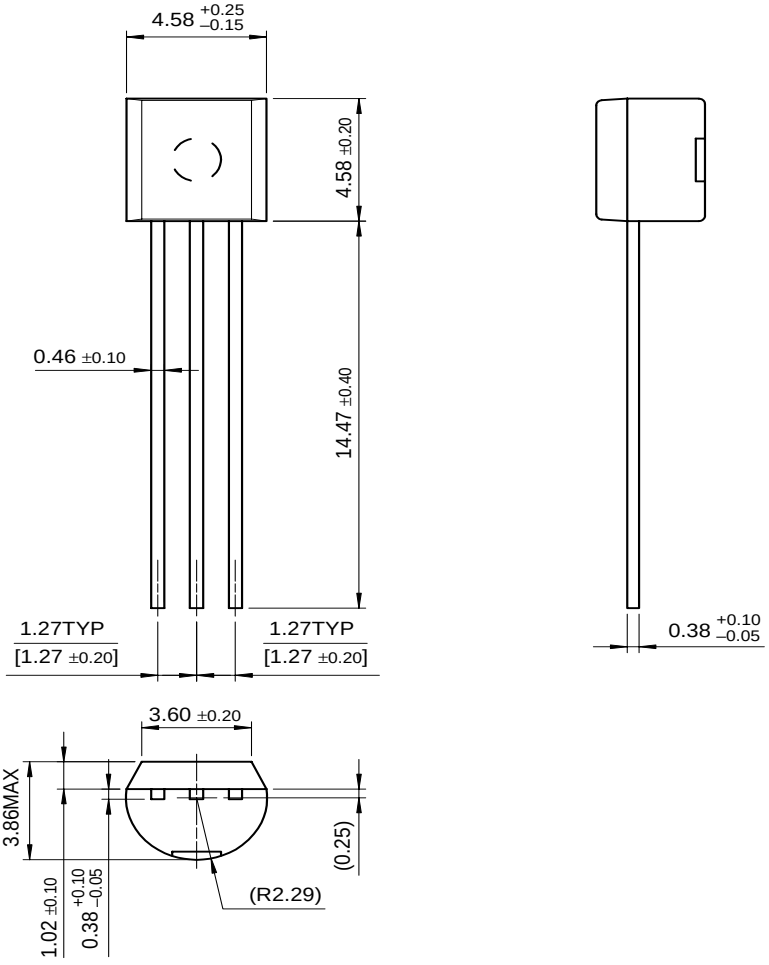
Package Dimensions

TO-92



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^2CMOS™	HiSeC™	MSXPro™	Quiet Series™	TruTranslation™
EnSigna™	I^2C™	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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