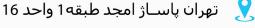






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### **SS8050**

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

- Complimentary to SS8550
- Collector Current: I<sub>C</sub>=1.5A
- Collector Power Dissipation: P<sub>C</sub>=2W (T<sub>C</sub>=25°C)



## **NPN Epitaxial Silicon Transistor**

## **Absolute Maximum Ratings** $T_a$ =25°C unless otherwise noted

Symbol	Parameter	Ratings	Units
V <sub>CBO</sub>	Collector-Base Voltage	40	V
V <sub>CEO</sub>	Collector-Emitter Voltage	25	V
V <sub>EBO</sub>	Emitter-Base Voltage	6	V
I <sub>C</sub>	Collector Current	1.5	Α
P <sub>C</sub>	Collector Power Dissipation	1	W
TJ	Junction Temperature	150	°C
T <sub>STG</sub>	Storage Temperature	-65 ~ 150	°C

### Electrical Characteristics T<sub>a</sub>=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	40			V
BV <sub>CEO</sub>	Collector-Emitter Breakdown Voltage	$I_C=2mA$ , $I_B=0$	25			V
BV <sub>EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> =100μA, I <sub>C</sub> =0	6			V
I <sub>CBO</sub>	Collector Cut-off Current	$V_{CB}$ =35V, $I_{E}$ =0			100	nA
I <sub>EBO</sub>	Emitter Cut-off Current	$V_{EB}$ =6V, $I_C$ =0			100	nA
h <sub>FE1</sub> h <sub>FE2</sub> h <sub>FE3</sub>	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 <sub>CE</sub> (sat)	Collector-Emitter Saturation Voltage	I <sub>C</sub> =800mA, I <sub>B</sub> =80mA		0.28	0.5	V
V <sub>BE</sub> (sat)	Base-Emitter Saturation Voltage	I <sub>C</sub> =800mA, I <sub>B</sub> =80mA		0.98	1.2	V
V <sub>BE</sub> (on)	Base-Emitter On Voltage	V <sub>CE</sub> =1V, I <sub>C</sub> =10mA		0.66	1	V
C <sub>ob</sub>	Output Capacitance	V <sub>CB</sub> =10V, I <sub>E</sub> =0 f=1MHz		9.0		pF
f <sub>T</sub>	Current Gain Bandwidth Product	V <sub>CE</sub> =10V, I <sub>C</sub> =50mA	100	190		MHz

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

Classification	В	С	D	
h <sub>FE2</sub>	85 ~ 160	120 ~ 200	160 ~ 300	

## **Typical Characteristics**

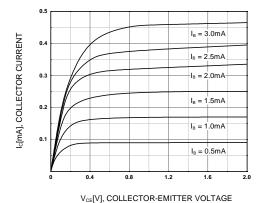


Figure 1. Static Characteristic

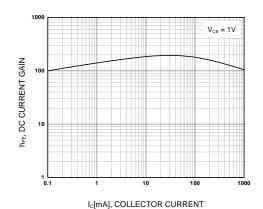


Figure 2. DC current Gain

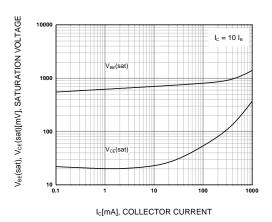


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

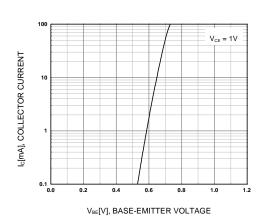


Figure 4. Base-Emitter On Voltage

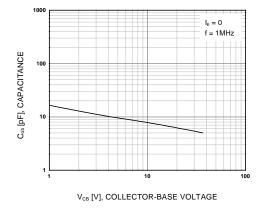


Figure 5. Collector Output Capacitance

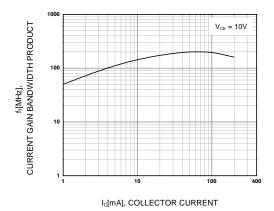
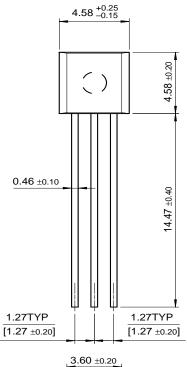


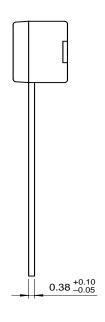
Figure 6. Current Gain Bandwidth Product

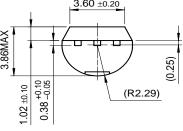
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## **Package Dimensions**

TO-92







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

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