



### **SS8550**

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

- Complimentary to SS8050
- Collector Current: I<sub>C</sub>=1.5A
- Collector Power Dissipation: P<sub>C</sub>=2W (T<sub>C</sub>=25°C)



1. Emitter 2. Base 3. Collector

# **PNP 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 <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
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>STG</sub>	Storage Temperature	-65 ~ 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	$I_C = -100 \mu A, I_E = 0$	-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	$I_E = -100 \mu A, I_C = 0$	-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>	DC Current Gain	$V_{CE}$ = -1V, $I_{C}$ = -5mA	45	170		
h <sub>FE2</sub>		$V_{CE} = -1V, I_{C} = -100 \text{mA}$	85	160	300	
$h_{FE3}$		$V_{CE} = -1V, I_{C} = -800 \text{mA}$	40	80		
V <sub>CE</sub> (sat)	Collector-Emitter Saturation Voltage	$I_{C}$ = -800mA, $I_{B}$ = -80mA		-0.28	-0.5	V
V <sub>BE</sub> (sat)	Base-Emitter Saturation Voltage	$I_{C}$ = -800mA, $I_{B}$ = -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	-1.0	V
C <sub>ob</sub>	Output Capacitance	V <sub>CB</sub> = -10V, I <sub>E</sub> =0 f=1MHz		15		pF
f <sub>T</sub>	Current Gain Bandwidth Product	$V_{CE} = -10V, I_{C} = -50mA$	100	200		MHz

# $h_{\mbox{\scriptsize FE}} Classification$

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





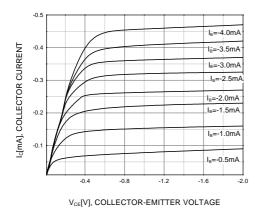


Figure 1. Static Characteristic

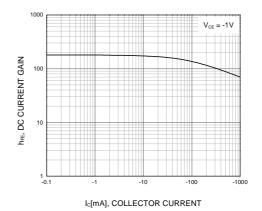


Figure 2. DC current Gain

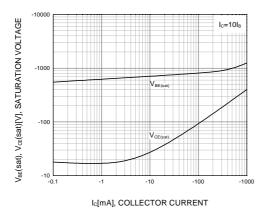


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

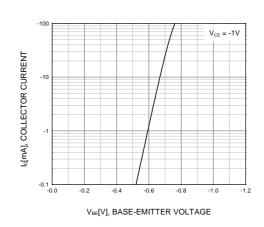


Figure 4. Base-Emitter On Voltage

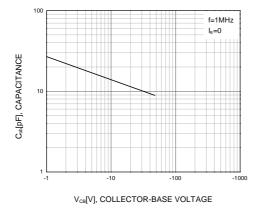


Figure 5. Collector Output Capacitance

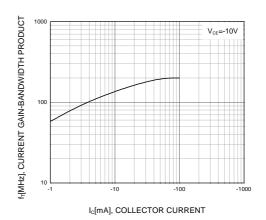
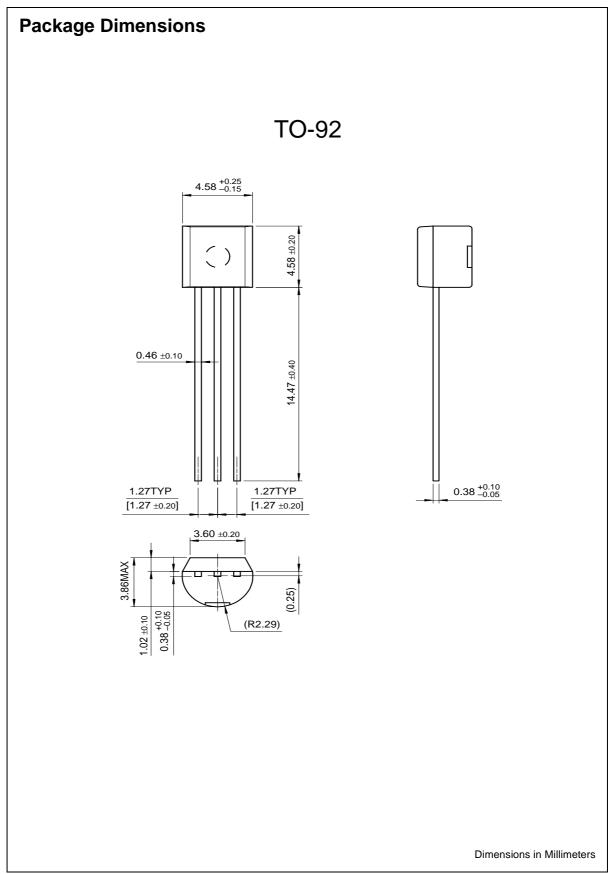


Figure 6. Current Gain Bandwidth Product

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E2CMOSTM	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™
Programmable Ad	ctive Droop™	OPTOPLANAR™	SMART START™	

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