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## **ON Semiconductor**®

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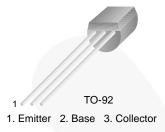
November 2014



### SS8550 PNP Epitaxial Silicon Transistor

#### Features

- 2 W Output Amplifier of Portable Radios in Class B Push-pull Operation.
- Complimentary to SS8050
- Collector Current: I<sub>C</sub> = 1.5 A



#### **Ordering Information**

Part Number	Top Mark	Package	Packing Method
SS8550BBU	S8550	TO-92 3L	Bulk
SS8550CBU	S8550	TO-92 3L	Bulk
SS8550CTA	S8550	TO-92 3L	Ammo
SS8550DBU	S8550	TO-92 3L	Bulk
SS8550DTA	S8550	TO-92 3L	Ammo

#### **Absolute Maximum Ratings**

Stresses exceeding the absolute maximum ratings may damage the device. The device may not function or be operable above the recommended operating conditions and stressing the parts to these levels is not recommended. In addition, extended exposure to stresses above the recommended operating conditions may affect device reliability. The absolute maximum ratings are stress ratings only. Values are at  $T_A = 25^{\circ}$ C unless otherwise noted.

Symbol	Parameter	Value	Unit
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
Ι <sub>C</sub>	Collector Current	-1.5	А
TJ	Junction Temperature	150	°C
T <sub>STG</sub>	Storage Temperature	-65 to 150	°C

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#### Thermal Characteristics<sup>(1)</sup>

Values are at  $T_A = 25^{\circ}C$  unless otherwise noted.

Symbol	Parameter	Value	Unit
P <sub>D</sub>	Power Dissipation	1	W
	Derate Above 25°C	8	mW/°C
R <sub>θJA</sub>	Thermal Resistance, Junction-to-Ambient	125	°C/W

Note:

1. PCB size: FR-4, 76 mm x 114 mm x 1.57 mm (3.0 inch x 4.5 inch x 0.062 inch) with minimum land pattern size.

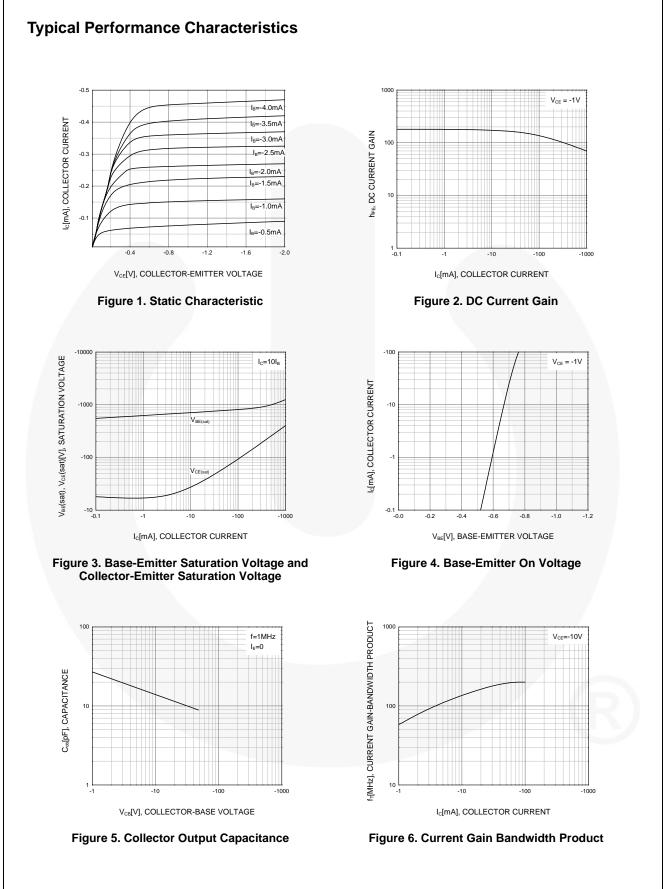
#### **Electrical Characteristics**

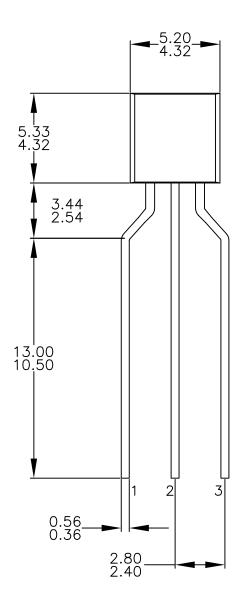
Values are at  $T_A = 25^{\circ}C$  unless otherwise noted.

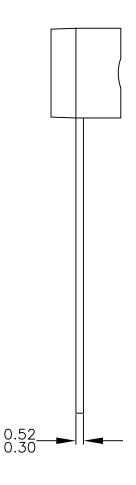
Symbol	Parameter	Conditions	Min.	Тур.	Max.	Unit
BV <sub>CBO</sub>	Collector-Base Breakdown Voltage	$I_{C} = -100 \ \mu A, \ I_{E} = 0$	-40			V
BV <sub>CEO</sub>	Collector-Emitter Breakdown Voltage	$I_{\rm C} = -2  \text{mA},  I_{\rm B} = 0$	-25			V
$BV_{EBO}$	Emitter-Base Breakdown Voltage	$I_{E} = -100 \ \mu A, \ I_{C} = 0$	-6			V
I <sub>CBO</sub>	Collector Cut-Off Current	$V_{CB} = -35 \text{ V}, \text{ I}_{E} = 0$			-100	nA
I <sub>EBO</sub>	Emitter Cut-Off Current	$V_{EB} = -6 V, I_{C} = 0$			-100	nA
h <sub>FE1</sub>		$V_{CE} = -1 V, I_{C} = -5 mA$	45	170		
h <sub>FE2</sub>	DC Current Gain	$V_{CE} = -1 V, I_{C} = -100 mA$	85	160	300	
h <sub>FE3</sub>	]	$V_{CE} = -1 V, I_{C} = -800 mA$	40	80		
V <sub>CE</sub> (sat)	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -800 mA, I <sub>B</sub> = -80 mA		-0.28	-0.50	V
V <sub>BE</sub> (sat)	Base-Emitter Saturation Voltage	I <sub>C</sub> = -800 mA, I <sub>B</sub> = -80 mA		-0.98	-1.20	V
V <sub>BE</sub> (on)	Base-Emitter On Voltage	$V_{CE} = -1 V, I_{C} = -10 mA$		-0.66	-1.00	V
C <sub>ob</sub>	Output Capacitance	$V_{CB} = -10 \text{ V}, I_E = 0,$ f = 1 MHz		15		pF
f <sub>T</sub>	Current Gain Bandwidth Product	$V_{CE} = -10 \text{ V}, \text{ I}_{C} = -50 \text{ mA}$	100	200		MHz

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

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

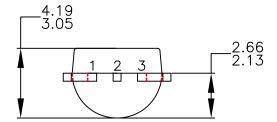


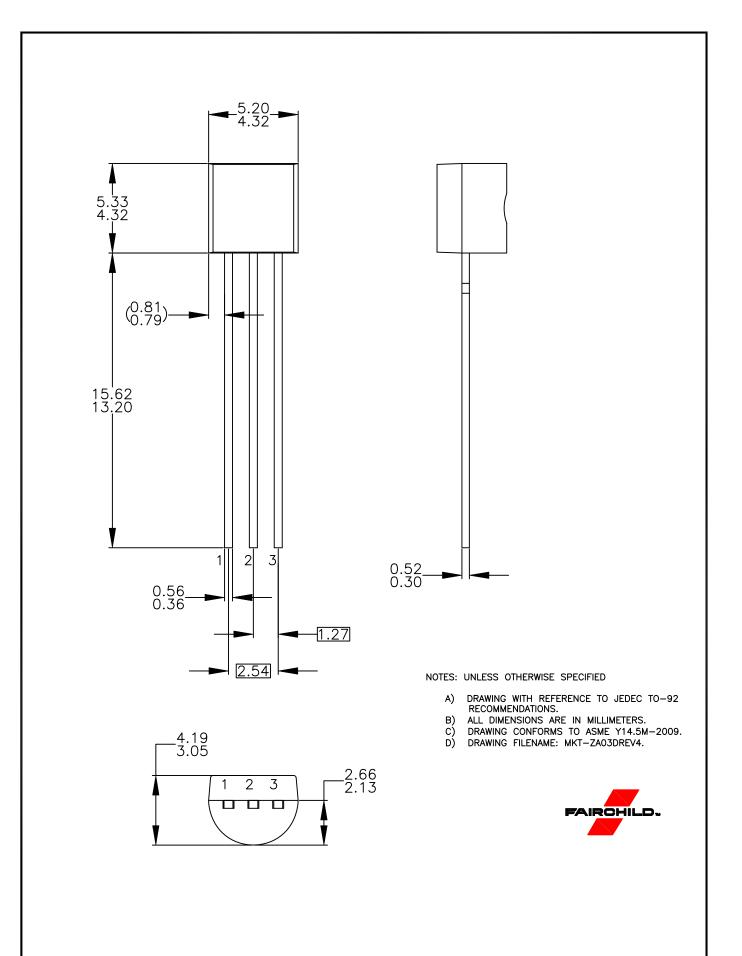




NOTES: UNLESS OTHERWISE SPECIFIED

- DRAWING CONFORMS TO JEDEC MS-013, VARIATION AC. ALL DIMENSIONS ARE IN MILLIMETERS. DRAWING CONFORMS TO ASME Y14.5M-2009. DRAWING FILENAME: MKT-ZA03FREV3. FAIRCHILD SEMICONDUCTOR. Α.
- В. С. D. Е.





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