

SS8050

NPN EPITAXIAL SILICON TRANSISTOR

2W OUTPUT AMPLIFIER OF PORTABLE RADIOS IN CLASS B PUSH-PULL OPERATION.

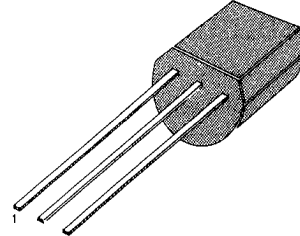
- Complimentary to SS8550
- Collector Current $I_C=1.5A$
- Collector Dissipation: $P_C=2W$ ($T_C=25^\circ C$)

ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ C$)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CEO}	25	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	1.5	A
Collector Dissipation	P_C	1	W
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature	T_{STG}	-65 ~ 150	$^\circ C$

1. Emitter 2. Base 3. Collector

TO-92



ELECTRICAL CHARACTERISTICS ($T_A=25^\circ C$)

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

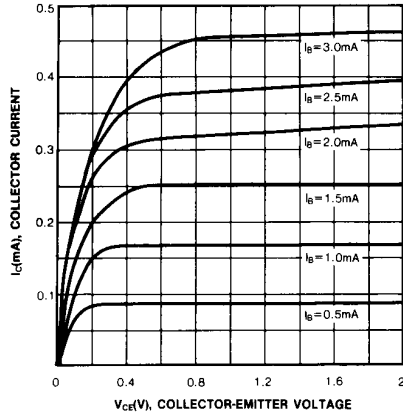
$h_{FE}(2)$ CLASSIFICATION

Classification	B	C	D
$h_{FE}(2)$	85-160	120-200	160-300

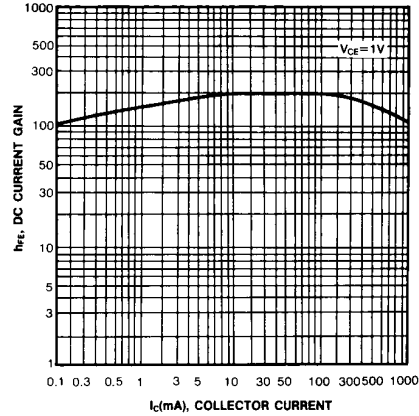
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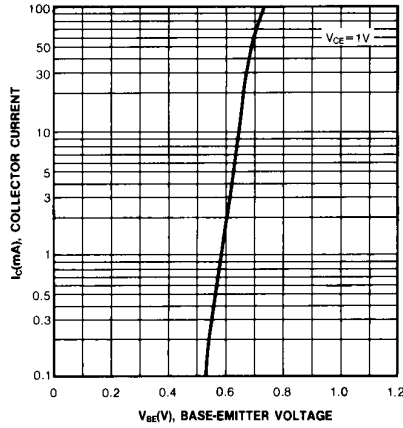
STATIC CHARACTERISTIC



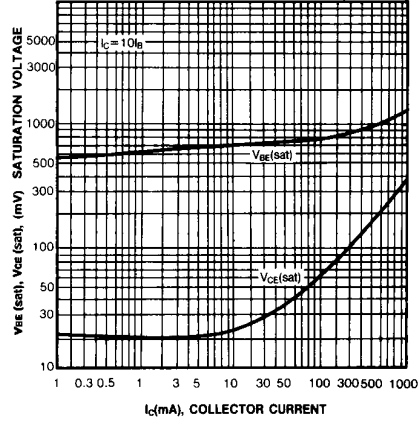
DC CURRENT GAIN



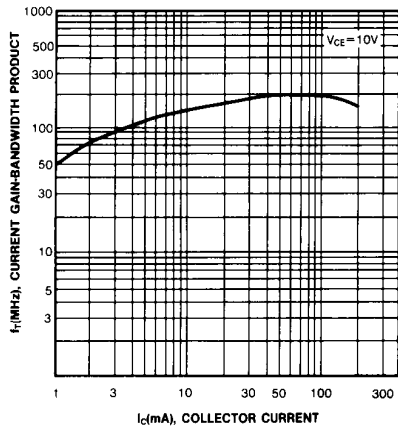
BASE-EMITTER ON VOLTAGE



BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE



CURRENT GAIN-BANDWIDTH PRODUCT



COLLECTOR OUTPUT CAPACITANCE

