



## TO-92 Plastic-Encapsulate Transistors

### 8550SS TRANSISTOR ( PNP )

#### FEATURES

Power dissipation

$$P_{CM} : 1W \quad (T_{amb}=25)$$

Collector current

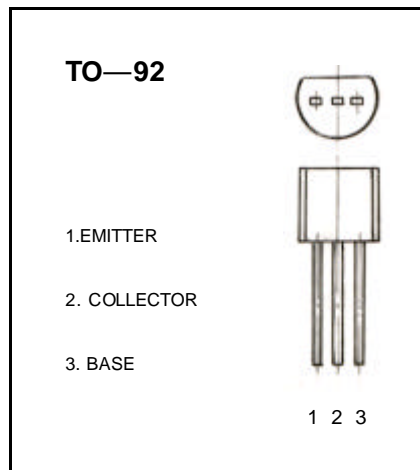
$$I_{CM} : -1.5 A$$

Collector-base voltage

$$V_{(BR)CBO} : -40V$$

Operating and storage junction temperature range

$$T_J, T_{stg} : -55 \text{ to } +150$$



#### ELECTRICAL CHARACTERISTICS ( $T_{amb}=25$ unless otherwise specified )

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100 \mu A, I_E = 0$	-40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -0.1 mA, I_B = 0$	-25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100 \mu A, I_C = 0$	-6			V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -40 V, I_E = 0$			-0.1	$\mu A$
Collector cut-off current	$I_{CEO}$	$V_{CE} = -20 V, I_E = 0$			-0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -5 V, I_C = 0$			-0.1	A
DC current gain	$h_{FE(1)}$	$V_{CE} = -1V, I_C = -100 mA$	85		300	
	$h_{FE(2)}$	$V_{CE} = -1V, I_C = -800 mA$	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -800 mA, I_B = -80 mA$			-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -800 mA, I_B = -80 mA$			-1.2	V
Transition frequency	$f_T$	$V_{CE} = -10 V, I_C = -50 mA$ $f = 30 MHz$	100			MHz

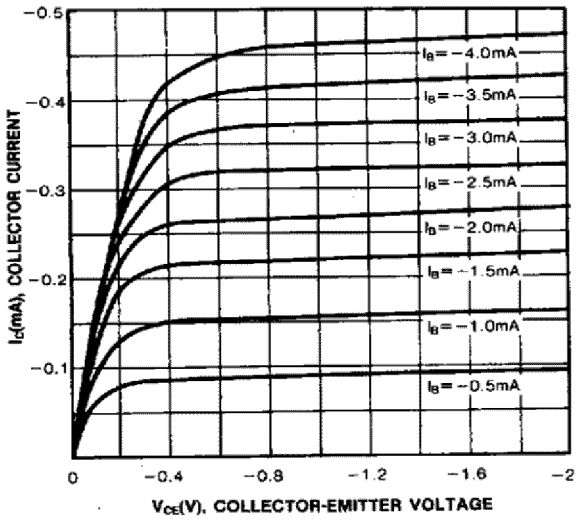
#### CLASSIFICATION OF $h_{FE(1)}$

Rank	B	C	D
Range	85-160	120-200	160-300

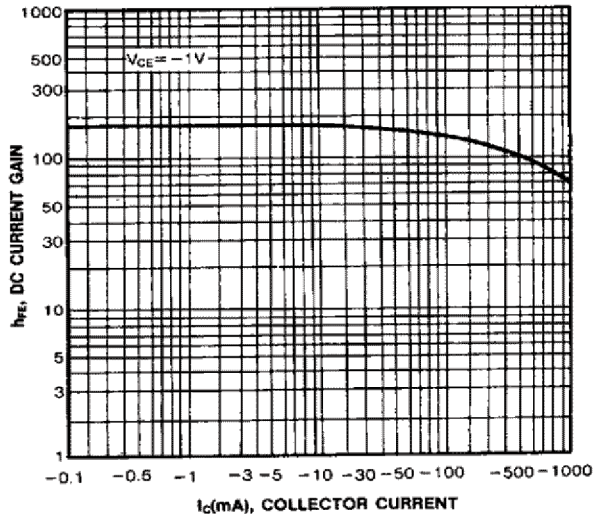
# Typical Characteristics

# 8550SS

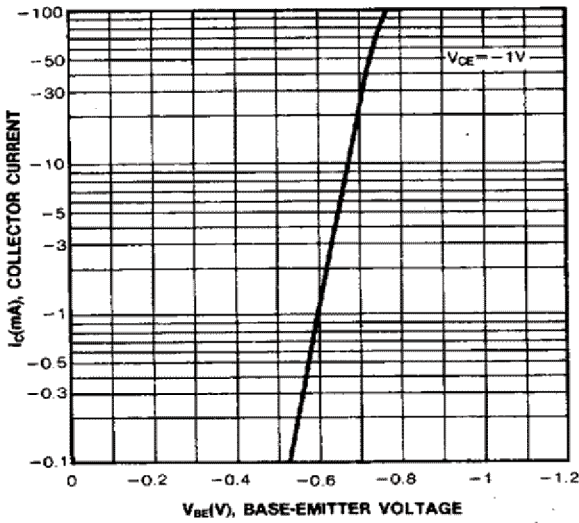
**STATIC CHARACTERISTIC**



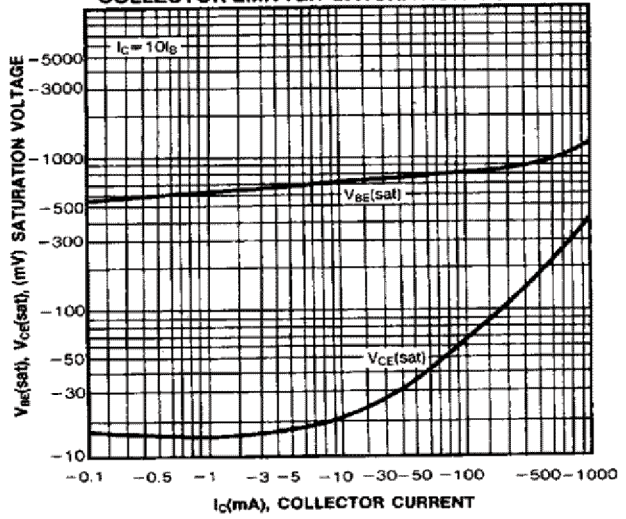
**DC CURRENT GAIN**



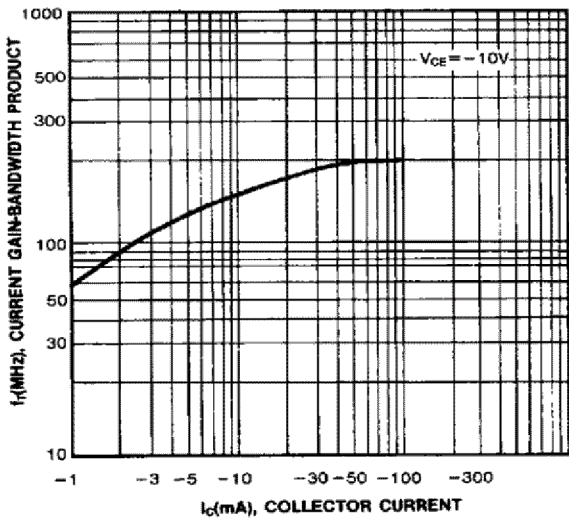
**BASE-EMITTER ON VOLTAGE**



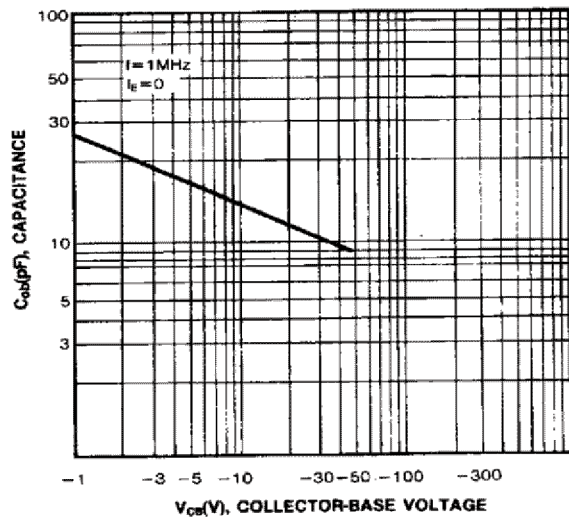
**BASE-EMITTER SATURATION VOLTAGE  
COLLECTOR-EMITTER SATURATION VOLTAGE**



**CURRENT GAIN-BANDWIDTH PRODUCT**



**COLLECTOR OUTPUT CAPACITANCE**



## TO-92 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
<b>A</b>	3.300	3.700	0.130	0.146
<b>A1</b>	1.100	1.400	0.043	0.055
<b>b</b>	0.380	0.550	0.015	0.022
<b>c</b>	0.360	0.510	0.014	0.020
<b>D</b>	4.400	4.700	0.173	0.185
<b>D1</b>	3.430		0.135	
<b>E</b>	4.300	4.700	0.169	0.185
<b>e</b>	1.270TYP		0.050TYP	
<b>e1</b>	2.440	2.640	0.096	0.104
<b>L</b>	14.100	14.500	0.555	0.571
<b>Ö</b>		1.600		0.063
$\downarrow$	0.000	0.380	0.000	0.015