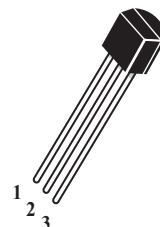


## PNP General Purpose Transistors

**(Pb)** Lead(Pb)-Free

**TO-92**

1. EMITTER  
2. BASE  
3. COLLECTOR



### ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V <sub>CEO</sub>	-25	V <sub>dc</sub>
Collector-Base Voltage	V <sub>CBO</sub>	-40	V <sub>dc</sub>
Emitter-Base Voltage	V <sub>EBO</sub>	-5.0	V <sub>dc</sub>
Collector Current	I <sub>C</sub>	-500	mA <sub>dc</sub>
Total Device Dissipation T <sub>A</sub> =25 °C	P <sub>D</sub>	0.625	W
Junction Temperature	T <sub>j</sub>	150	°C
Storage, Temperature	T <sub>stg</sub>	-55 to +150	°C

### ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Min	Max	Unit
Collector-Emitter Breakdown Voltage (I <sub>C</sub> = -0.1 mA <sub>dc</sub> , I <sub>B</sub> =0)	V <sub>(BR)CEO</sub>	-25	-	V <sub>dc</sub>
Collector-Base Breakdown Voltage (I <sub>C</sub> = -100 μA <sub>dc</sub> , I <sub>E</sub> =0)	V <sub>(BR)CBO</sub>	-40	-	V <sub>dc</sub>
Emitter-Base Breakdown Voltage (I <sub>E</sub> = -100 μA <sub>dc</sub> , I <sub>C</sub> =0)	V <sub>(BR)EBO</sub>	-5.0	-	V <sub>dc</sub>
Collector Cutoff Current (V <sub>CE</sub> = -20 V <sub>dc</sub> , I <sub>B</sub> =0)	I <sub>CE0</sub>	-	-0.2	uA <sub>dc</sub>
Collector Cutoff Current (V <sub>CB</sub> = -40 V <sub>dc</sub> , I <sub>E</sub> =0)	I <sub>CBO</sub>	-	-0.1	uA <sub>dc</sub>
Emitter Cutoff Current (V <sub>EB</sub> = -3.0V <sub>dc</sub> , I <sub>C</sub> =0)	I <sub>EBO</sub>	-	-0.1	uA <sub>dc</sub>

**S8550****ELECTRICAL CHARACTERISTICS** ( $T_A=25^{\circ}\text{C}$  unless otherwise noted) (Continued)

Characteristics	Symbol	Min	TYP	Max	Unit
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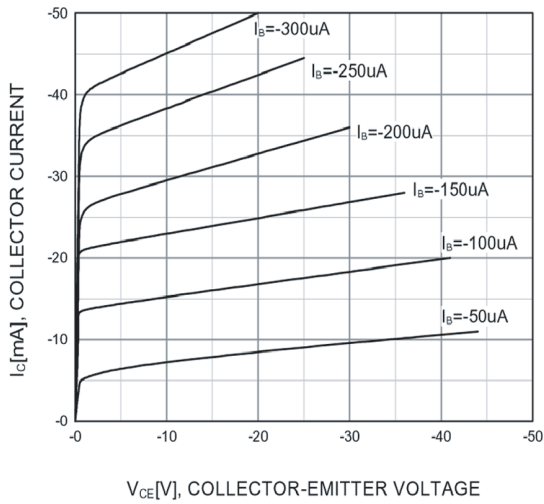
**ON CHARACTERISTICS**

DC Current Gain ( $I_C=-50\text{ mAdc}, V_{CE}=1.0\text{ Vdc}$ )	$h_{FE(1)}$	85	-	300	-
DC Current Gain ( $I_C=-500\text{ mAdc}, V_{CE}=1.0\text{ Vdc}$ )	$h_{FE(2)}$	50	-	-	-
Collector-Emitter Saturation Voltage ( $I_C=-500\text{ mAdc}, I_B=-50\text{ mAdc}$ )	$V_{CE(sat)}$	-	-	-0.6	Vdc
Base-Emitter Saturation Voltage ( $I_C=-500\text{ mAdc}, I_B=-50\text{ mAdc}$ )	$V_{BE(sat)}$	-	-	-1.2	Vdc
Current-Gain-Bandwidth Product ( $I_C=-20\text{ mAdc}, V_{CE}=6.0\text{ Vdc}, f=30\text{ MHz}$ )	$f_T$	150	-	-	MHz

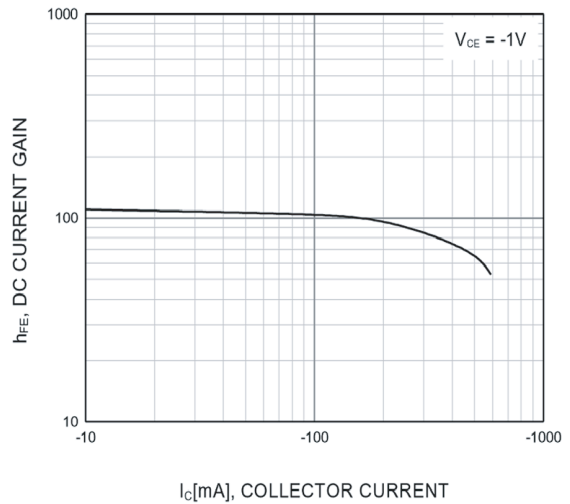
**Classification of  $h_{FE(1)}$** 

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

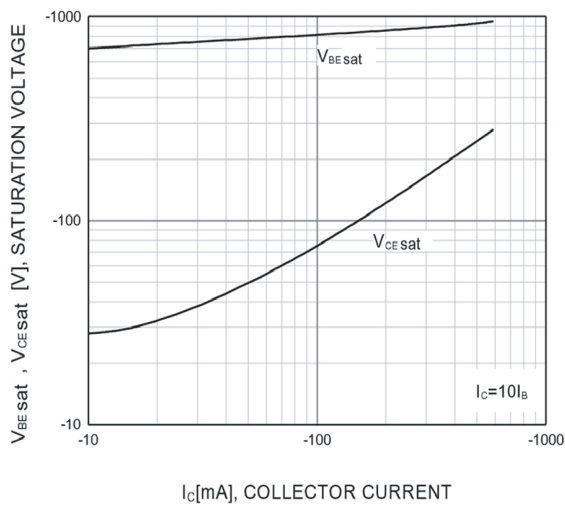
## Typical Characteristics



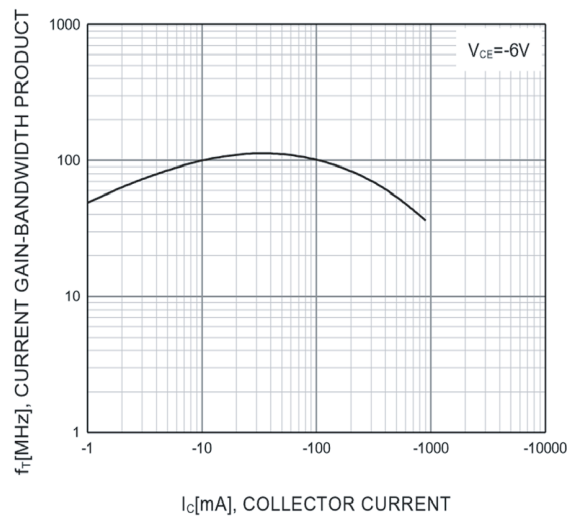
**Static Characteristic**



**DC current Gain**



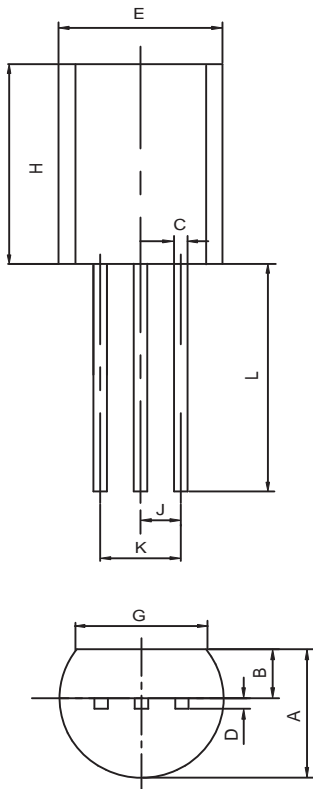
**Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage**



**Current Gain Bandwidth Product**

## TO-92 Outline Dimensions

unit:mm



TO-92		
Dim	Min	Max
A	3.30	3.70
B	1.10	1.40
C	0.38	0.55
D	0.36	0.51
E	4.40	4.70
G	3.43	-
H	4.30	4.70
J	1.270TYP	
K	2.44	2.64
L	14.10	14.50