



SM Technology Co., Limited

TO-92 Plastic-Encapsulate Transistors

S8550 TRANSISTOR (PNP)

FEATURE

Excellent h_{FE} linearity

MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-40	V
V_{CEO}	Collector-Emitter Voltage	-25	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-500	mA
P_C	Collector Dissipation	625	mW
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Junction and Storage Temperature	-55-150	$^\circ\text{C}$

TO-92

1. EMITTER
2. BASE
3. COLLECTOR



ELECTRICAL CHARACTERISTICS ($T_{amb}=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu\text{A}$, $I_E = 0$	-40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}$, $I_B = 0$	-25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu\text{A}$, $I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -40\text{V}$, $I_E = 0$			-0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE} = -20\text{V}$, $I_B = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -3\text{V}$, $I_C = 0$			-0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = -1\text{V}$, $I_C = -50\text{mA}$	85		400	
	$h_{FE(2)}$	$V_{CE} = -1\text{V}$, $I_C = -500\text{mA}$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500\text{mA}$, $I_B = -50\text{mA}$			-0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -500\text{mA}$, $I_B = -50\text{mA}$			-1.2	V
Transition frequency	f_T	$V_{CE} = -6\text{V}$, $I_C = -20\text{mA}$, $f = 30\text{MHz}$	150			MHz

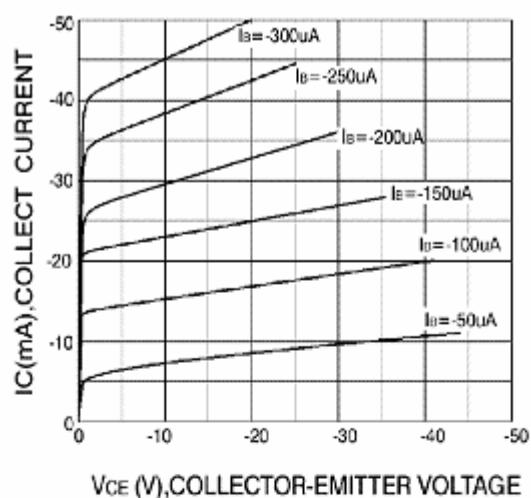
CLASSIFICATION OF $h_{FE(1)}$

Rank	B	C	D	D3
Range	85-160	120-200	160-300	300-400

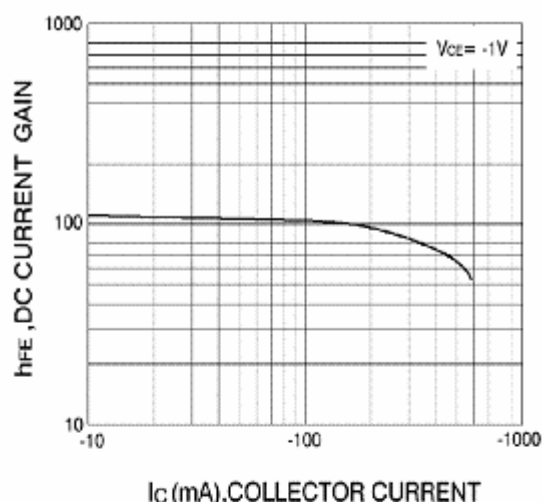


Typical Characteristics

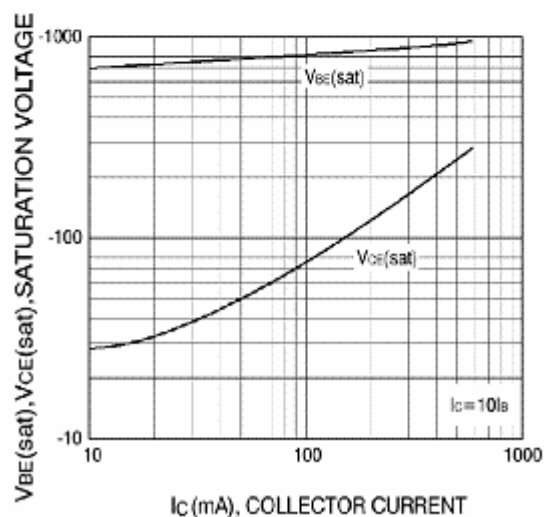
S8550



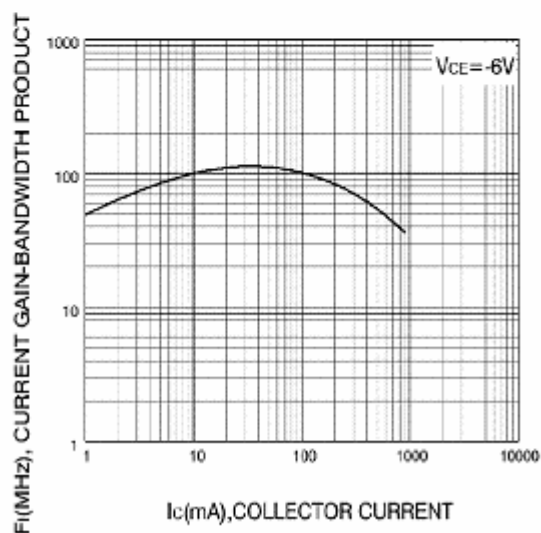
Static Characteristic



DC current Gain



Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage



Current Gain Bandwidth Product