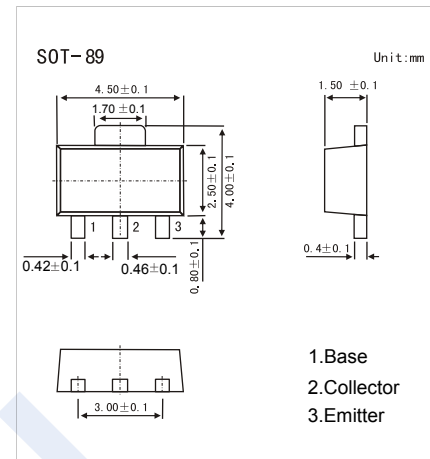


PNP Transistors

2SB1114

■ Features

- High Dc current gain $h_{FE}=135$ to 600
- Low $V_{CE(sat)}$ $V_{CE(sat)}=-0.3V$ at 1.5A
- Complementary to 2SD1614



■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	-20	V
Collector - Emitter Voltage	V_{CEO}	-20	
Emitter - Base Voltage	V_{EBO}	-6	
Collector Current - Continuous	I_C	-2	A
Collector current -Pulse	I_{CP}	-3	
Collector Power Dissipation	P_C	2	W
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature range	T_{stg}	-55 to 150	

■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	$I_C = -100 \mu A, I_E = 0$	-20			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = -1 mA, I_B = 0$	-20			
Emitter - base breakdown voltage	V_{EBO}	$I_E = -100 \mu A, I_C = 0$	-6			
Collector-base cut-off current	I_{CBO}	$V_{CB} = -16V, I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -6V, I_C = 0$			-0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -1.5 A, I_B = -50mA$		-0.3	-0.5	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -1.5 A, I_B = -50mA$		-1.05	-1.2	
Base - emitter voltage	V_{BE}	$V_{CE} = -6V, I_C = -100 mA$	-0.65	-0.68	-0.75	
DC current gain	h_{FE}	$V_{CE} = -2V, I_C = -100 mA$	135	350	600	
		$V_{CE} = -2V, I_C = -2 A$	40			
Collector output capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$		60		μF
Transition frequency	f_T	$V_{CE} = -10V, I_E = 50mA$		180		MHz

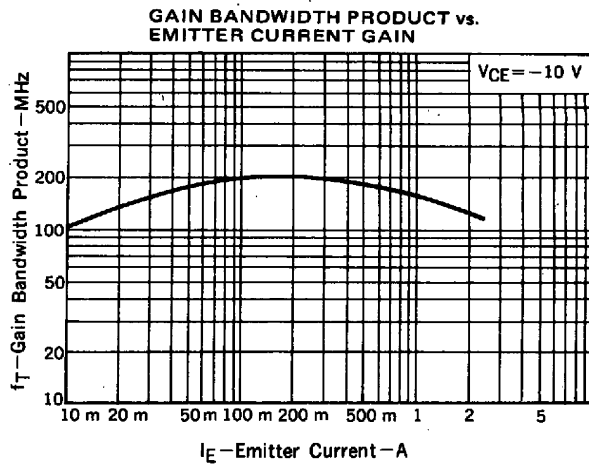
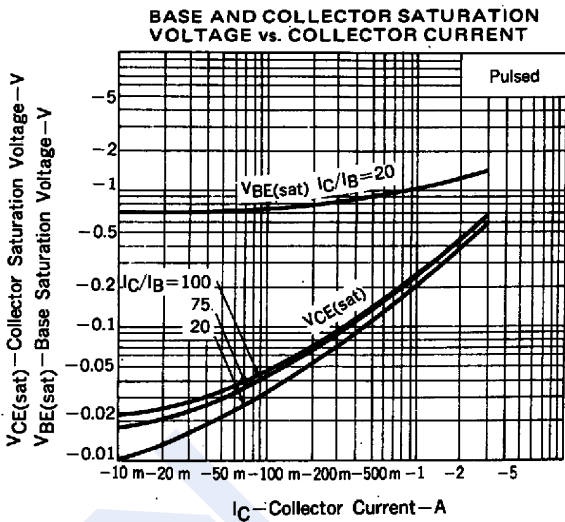
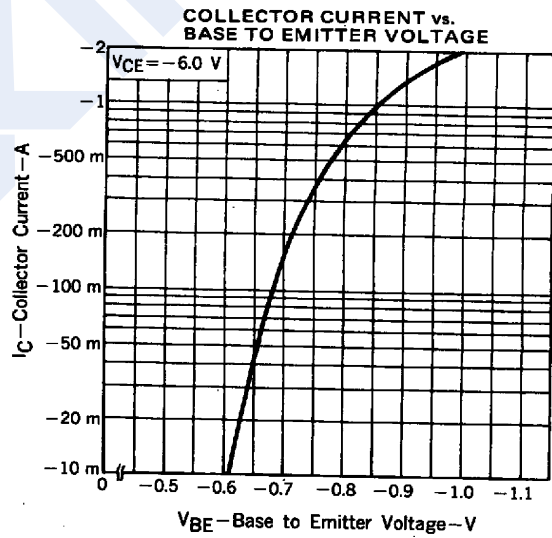
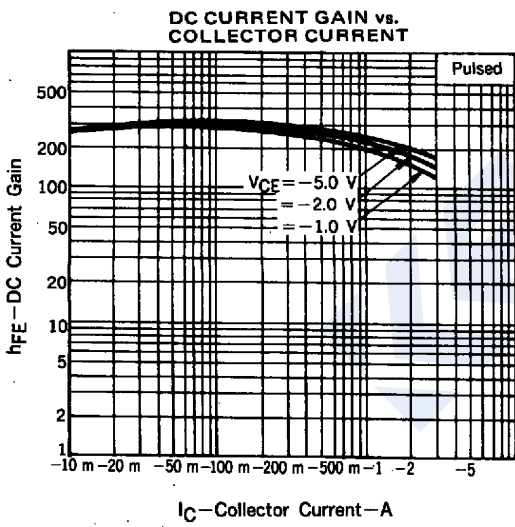
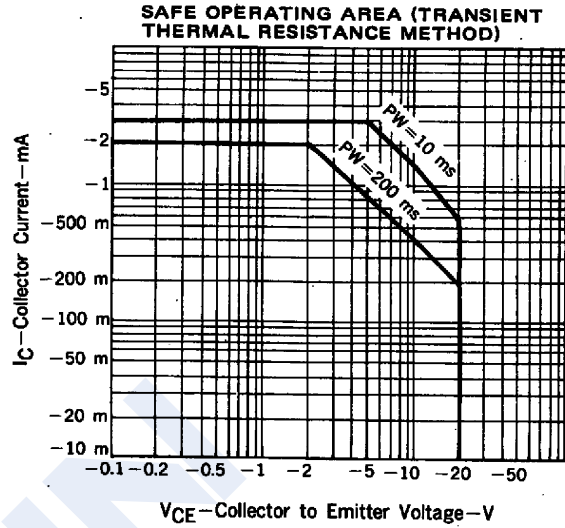
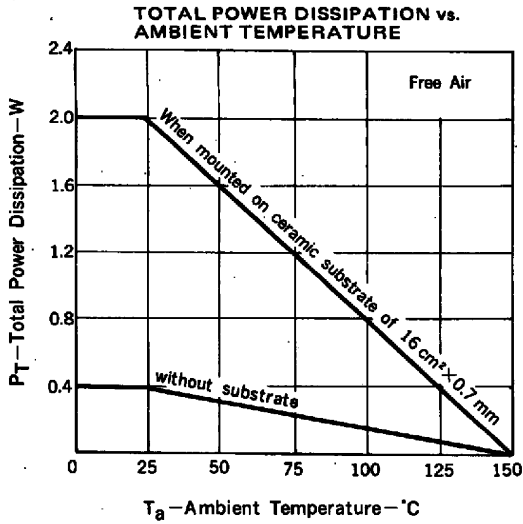
■ Classification of $h_{fe}(1)$

Type	2SB1114-M	2SB1114-L	2SB1114-K
Range	135-270	200-400	300-600
Marking	ZM	ZL	ZK

PNP Transistors

2SB1114

■ Typical Characteristics



PNP Transistors

2SB1114

■ Typical Characteristics

