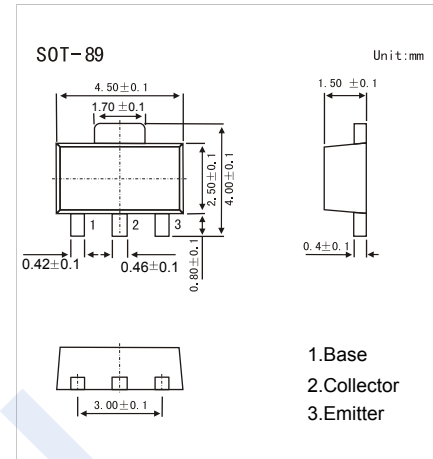


PNP Transistors

2SB1115A-HF

■ Features

- Low $V_{CE(sat)}$ $V_{CE(sat)} = -0.2V$ at 1A
- Complementary to 2SD1615A-HF
- Pb-Free Package May be Available. The G-Suffix Denotes a Pb-Free Lead Finish



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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	-80	V
Collector - Emitter Voltage	V_{CEO}	-60	
Emitter - Base Voltage	V_{EBO}	-6	
Collector Current - Continuous	I_C	-1	A
Collector current -Pulse (Note.1)	I_{CP}	-2	
Collector Power Dissipation	P_C	2	W
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature range	T_{stg}	-55 to 150	

Note.1: $PW \leq 10ms$, Duty Cycle $\leq 50\%$

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	$I_C = -100 \mu A$, $I_E = 0$	-80			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = -1 mA$, $I_B = 0$	-60			
Emitter - base breakdown voltage	V_{EBO}	$I_E = -100 \mu A$, $I_C = 0$	-6			
Collector-base cut-off current	I_{CBO}	$V_{CB} = -80V$, $I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -6V$, $I_C = 0$			-0.1	
Collector-emitter saturation voltage (Note.1)	$V_{CE(sat)}$	$I_C = -1 A$, $I_B = -50mA$		-0.2	-0.3	V
Base - emitter saturation voltage (Note.1)	$V_{BE(sat)}$	$I_C = -1 A$, $I_B = -50mA$		-0.9	-1.2	
Base - emitter voltage (Note.1)	V_{BE}	$V_{CE} = -2V$, $I_C = -50 mA$	-0.6		-0.7	
DC current gain (Note.1)	h_{FE}	$V_{CE} = -2V$, $I_C = -100 mA$	135	340	400	
		$V_{CE} = -2V$, $I_C = -1 A$	100	200		
Collector output capacitance	C_{ob}	$V_{CB} = -10V$, $I_E = 0$, $f = 1MHz$		25		μF
Transition frequency	f_T	$V_{CE} = -2V$, $I_C = -100mA$	80	120		MHz

Note.1: Pulse: $PW \leq 350\mu s$, Duty Cycle $\leq 2\%$

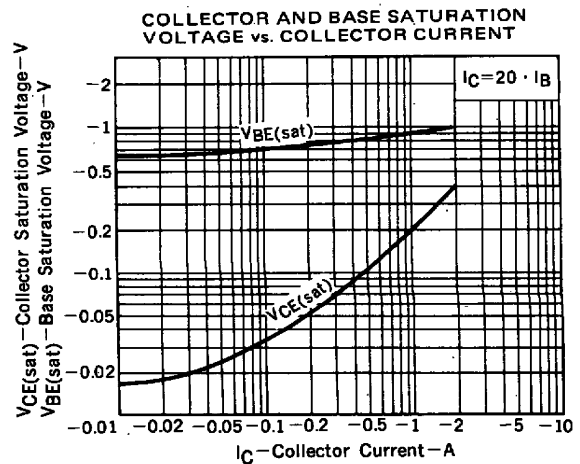
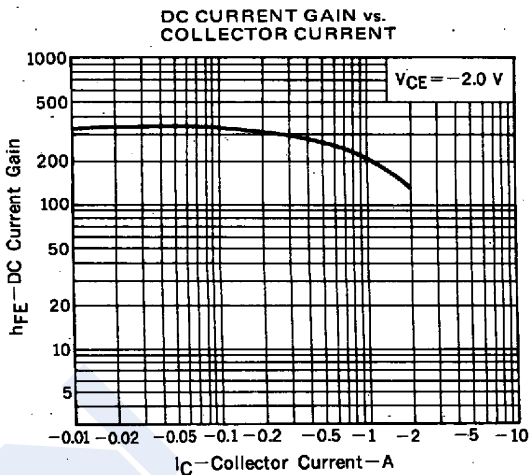
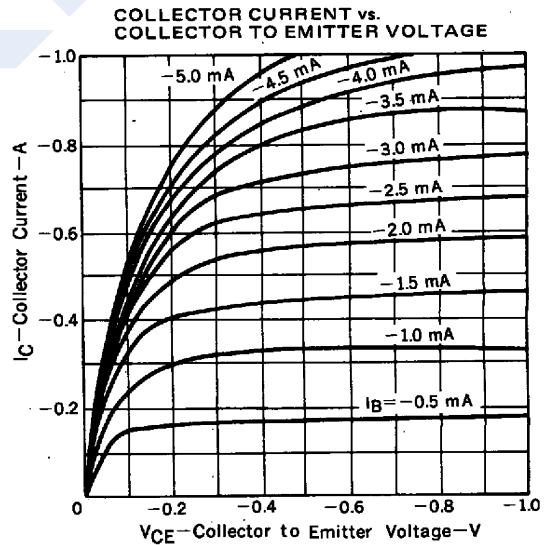
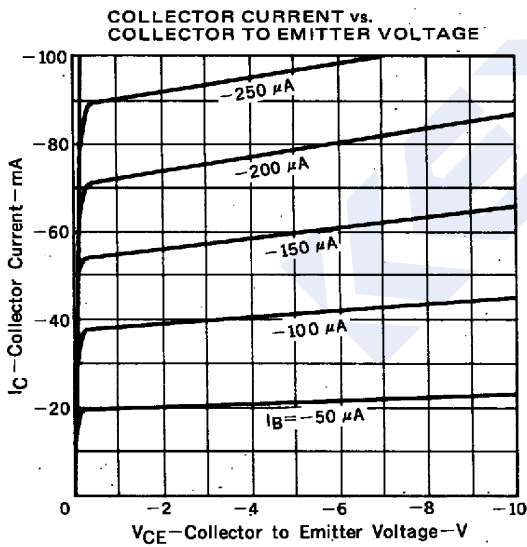
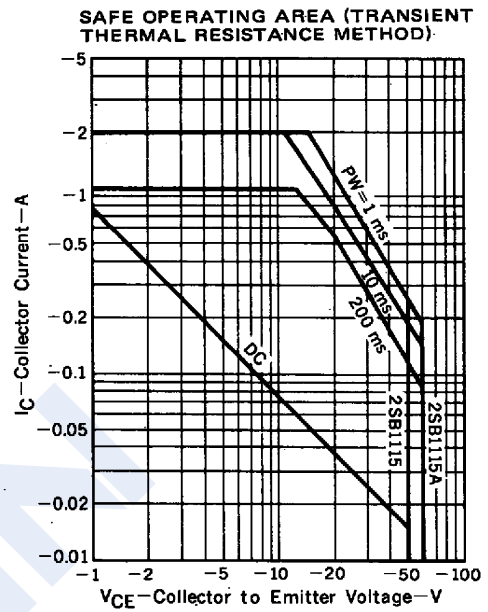
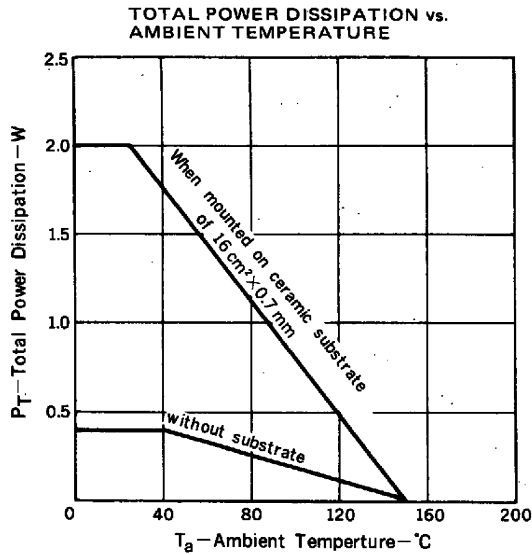
■ Classification of $h_{FE}(1)$

Type	2SB1115A-Q-HF	2SB1115A-P-HF
Range	135-270	200-400
Marking	YQ _F	YP _F

PNP Transistors

2SB1115A-HF

■ Typical Characteristics



PNP Transistors

2SB1115A-HF

■ Typical Characteristics

