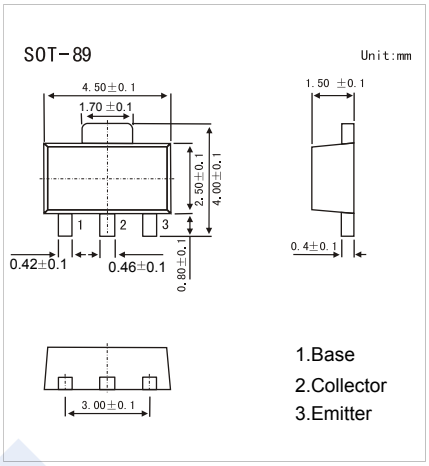
PNP Transistors

2SB1572



■ Features

- Low collector-emitter saturation voltage
- Complementary to 2SD2403

■ Absolute Maximum Ratings Ta = 25℃

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	-3	A
Collector Current - Pulse	I_{CP}	-5	
Collector Power Dissipation	P_C	2	W
Junction Temperature	T_J	150	℃
Storage Temperature range	T_{stg}	-55 to 150	

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	I_C= -100 uA, 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 uA, I_C=0	-6			
Collector-base cut-off current	I_{CBO}	V_{CB}= -80V , I_E=0			-0.1	uA
Emitter cut-off current	I_{EBO}	V_{EB}= -6V , I_C=0			-0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-2 A, I_B=-100 mA		-0.2	-0.4	V
		I_C=-3 A, I_B=-150 mA		-0.3	-0.6	
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C=-2 A, I_B=-100 mA		-0.89	-1.2	
Base - emitter voltage	V_{BE}	V_{CE}= -2V, I_C= -100 mA	-0.63		-0.73	
DC current gain	h_{FE}	V_{CE}= -2V, I_C= -100 mA	80			
		V_{CE}= -2V, I_C= -1 A	100	200	400	
Turn-on Time	t_{on}	I_C = −1 A, V_{CC} = −10 V, R_L = 5.0 Ω, I_{B1} = −I_{B2} = −0.1 A,		155		ns
Storage Time	t_{stg}			510		
Fall Time	t_f			35		
Collector output capacitance	C_{ob}	V_{CB}= -10V, I_E= 0,f=1MHz		45		pF
Transition frequency	f_T	V_{CE}= -10V, I_E= 300 mA		160		MHz

■ Classification of $h_{fe(2)}$

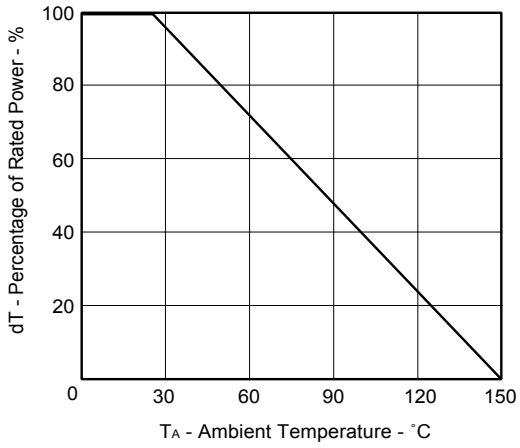
Type	2SB1572-X	2SB1572-Y	2SB1572-Z
Range	100-200	160-320	200-400
Marking	HX	HY	HZ

PNP Transistors

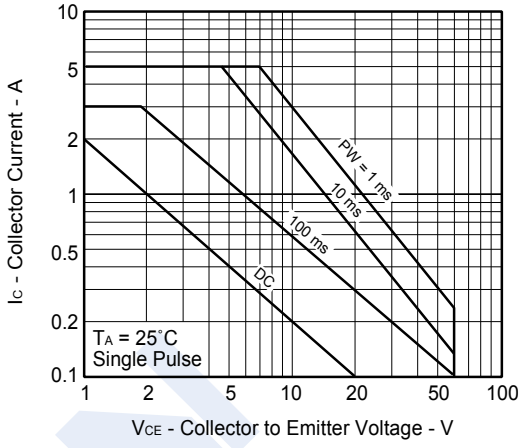
2SB1572

■ Typical Characterisitics

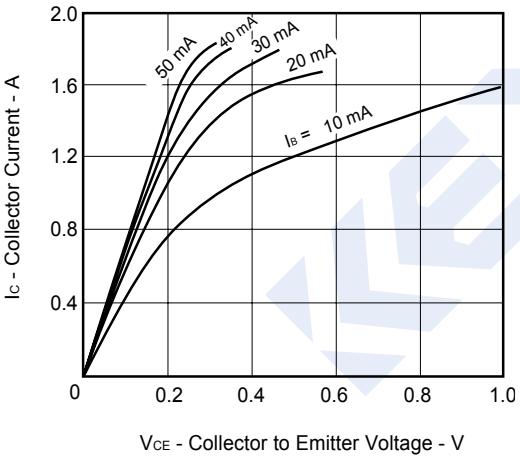
DERATING FACTOR OF FORWARD BIAS SAFE OPERATING AREA



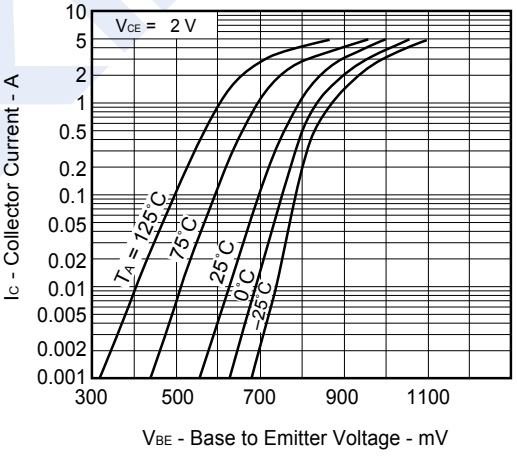
FORWARD BIAS SAFE OPERATING AREA



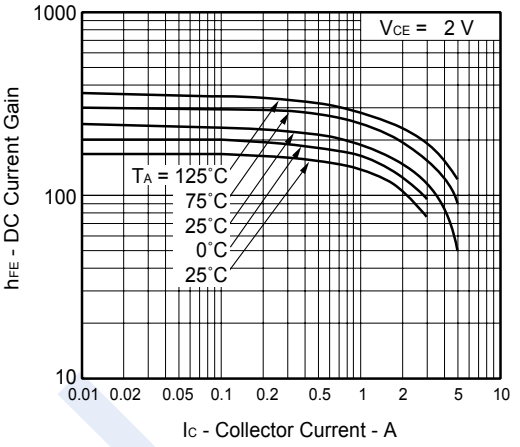
COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



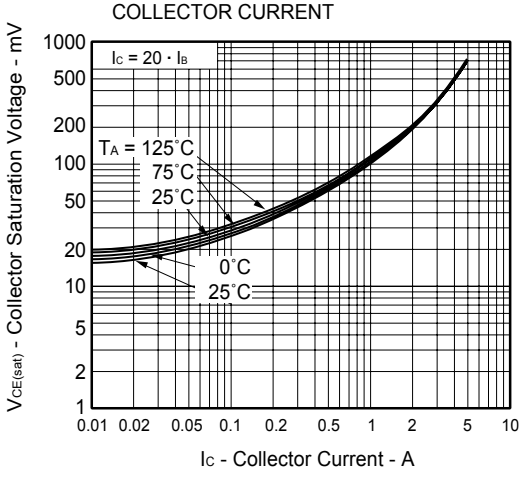
COLLECTOR CURRENT vs. BASE TO EMITTER VOLTAGE



DC CURRENT GAIN vs. COLLECTOR CURRENT



COLLECTOR SATURATION VOLTAGE vs. COLLECTOR CURRENT

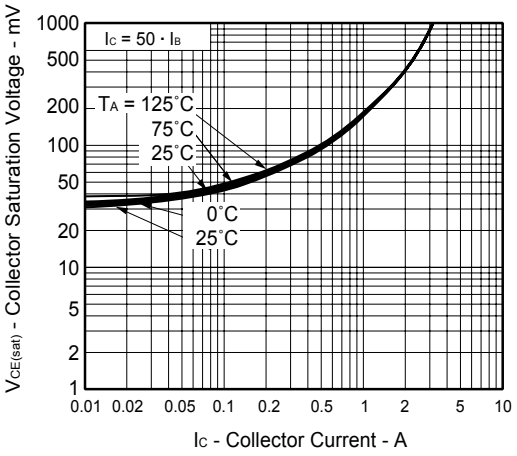


PNP Transistors

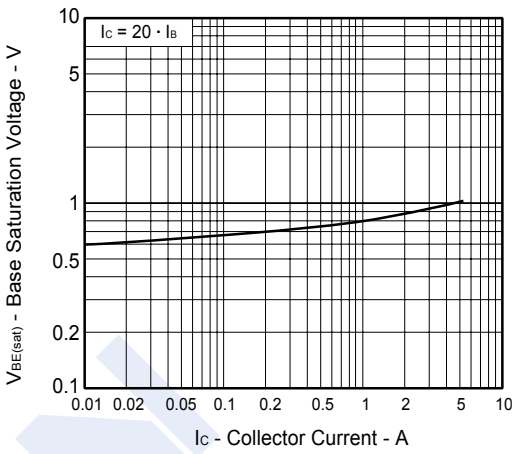
2SB1572

■ Typical Characterisitics

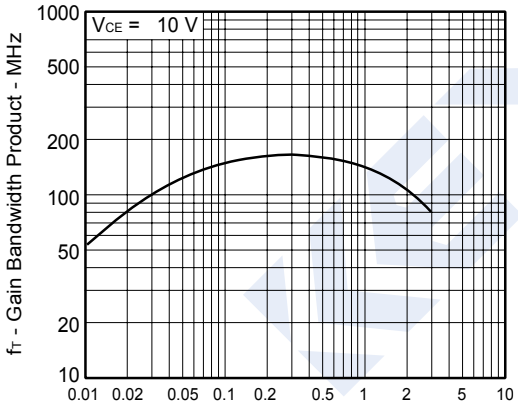
COLLECTOR SATURATION VOLTAGE vs. COLLECTOR CURRENT



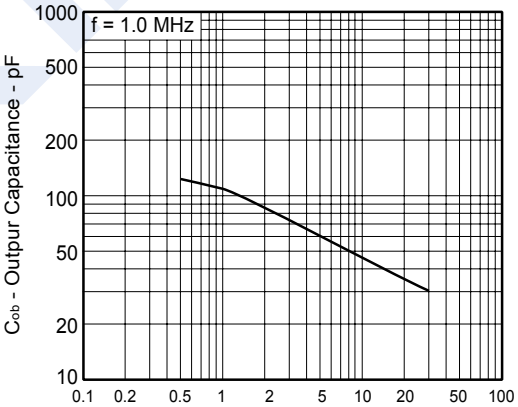
BASE SATURATION VOLTAGE vs. COLLECTOR CURRENT



GAIN BANDWIDTH PRODUCT vs. EMITTER CURRENT



OUTPUT CAPACITANCE vs. REVERSE VOLTAGE



SWITCHING CHARACTERISTICS