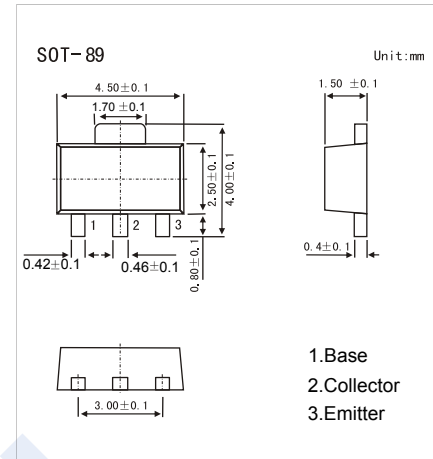


PNP Transistors

2SB1628

■ Features

- High current capacitance
- Low collector saturation voltage



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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	-20	V
Collector - Emitter Voltage	V_{CE0}	-16	
Emitter - Base Voltage	V_{EB0}	-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	$^\circ\text{C}$
Storage Temperature range	T_{stg}	-55 to 150	

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CB0}	$I_C = -100 \mu\text{A}$, $I_E = 0$	-20			V
Collector- emitter breakdown voltage	V_{CE0}	$I_C = -1 \text{ mA}$, $I_B = 0$	-16			
Emitter - base breakdown voltage	V_{EB0}	$I_E = -100 \mu\text{A}$, $I_C = 0$	-6			
Collector-base cut-off current	I_{CBO}	$V_{CB} = -20 \text{ V}$, $I_E = 0$			-100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = -6 \text{ V}$, $I_C = 0$			-100	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -2 \text{ A}$, $I_B = -100 \text{ mA}$ $I_C = -3 \text{ A}$, $I_B = -150 \text{ mA}$			-0.35 -0.55	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -2 \text{ A}$, $I_B = -100 \text{ mA}$			-1.2	
Base - emitter voltage	V_{BE}	$V_{CE} = -2 \text{ V}$, $I_C = -50 \text{ mA}$	-0.6		-0.7	
DC current gain	$h_{FE(1)}$	$V_{CE} = -2 \text{ V}$, $I_C = -500 \text{ mA}$	140		560	
	$h_{FE(2)}$	$V_{CE} = -2 \text{ V}$, $I_C = -3 \text{ A}$	70			
Turn-on time	t_{on}	$I_C = -1.0 \text{ A}$, $V_{CC} = -10 \text{ V}$ $I_{B1} = -I_{B2} = -0.1 \text{ A}$ $R_L = 10 \Omega$		70		ns
Storage time	t_{stg}			110		
Fall time	t_f			40		
Collector output capacitance	C_{ob}	$V_{CB} = -10 \text{ V}$, $I_E = 0$, $f = 1 \text{ MHz}$		45		pF
Transition frequency	f_T	$V_{CE} = -3 \text{ V}$, $I_E = 500 \text{ mA}$		320		MHz

■ Classification of $h_{FE(1)}$

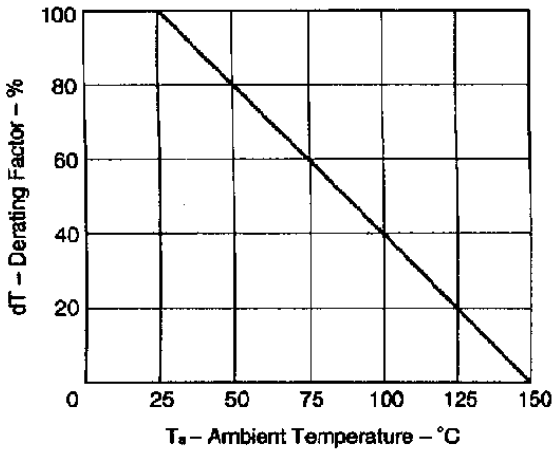
Type	2SB1628-X	2SB1628-Y	2SB1628-Z
Range	140-280	200-400	280-560
Marking	ZX	ZY	ZZ

PNP Transistors

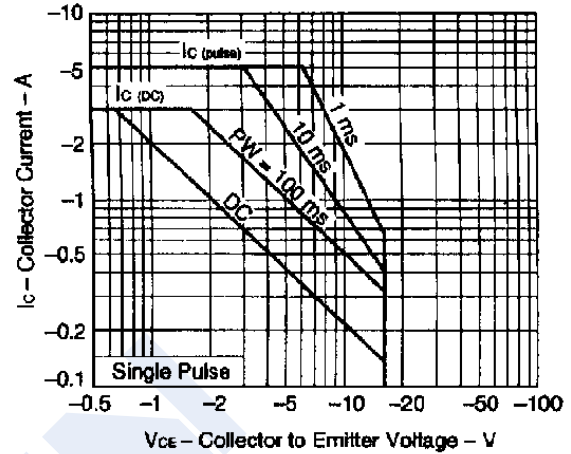
2SB1628

■ Typical Characteristics

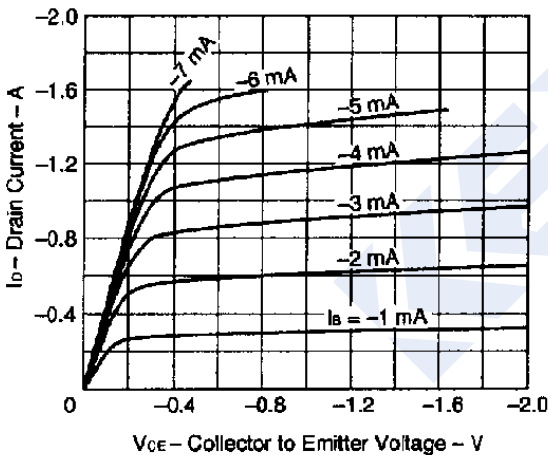
DERATING FACTOR OF FORWARD BIAS SAFE OPERATING AREA



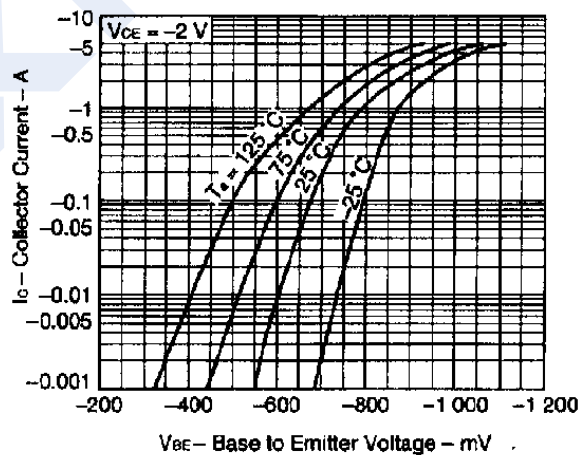
FORWARD BIAS SAFE OPERATING AREA



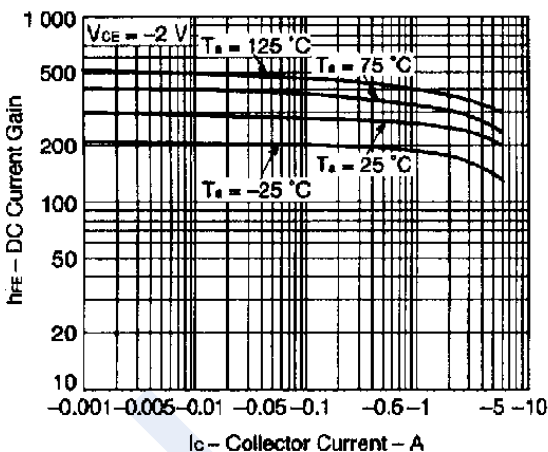
DRAIN CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



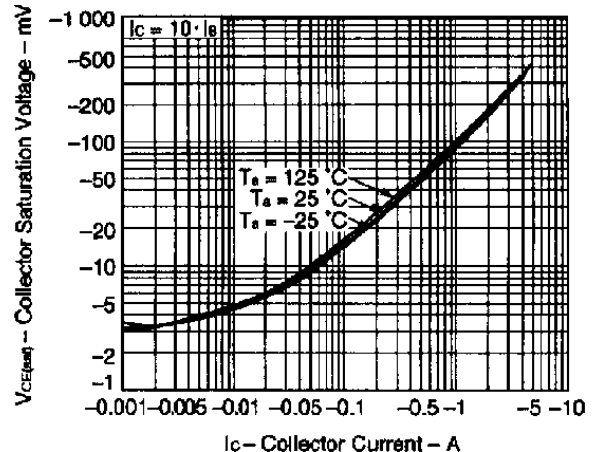
COLLECTOR CURRENT vs. BASE TO EMITTER VOLTAGE



DC CURRENT GAIN vs. COLLECTOR CURRENT



COLLECTOR SATURATION VOLTAGE vs. COLLECTOR CURRENT



PNP Transistors

2SB1628

■ Typical Characteristics

