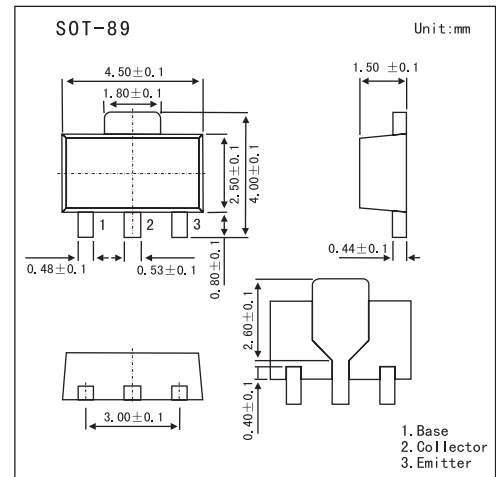


PNP Silicon Epitaxial Transistor

2SB1628

■ Features

- High current capacitance.
- Low collector saturation voltage.

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

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-20	V
Collector to Emitter Voltage	V_{CEO}	-16	V
Emitter to Base Voltage	V_{EBO}	-6	V
Collector Current (DC)	$I_{C(DC)}$	-3	A
Collector Current (pulse) *	$I_{C(Pulse)}$	-5	A
Base Current (DC)	$I_{B(DC)}$	-0.2	A
Base Current (pulse) *	$I_{B(Pulse)}$	-0.4	A
Total Power Dissipation	P_T	2	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

* $PW \leq 10 \text{ ms}$, Duty Cycle $\leq 50\%$

2SB1628

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector Cut-off Current	ICBO	VCBO = -20 V, IE = 0			-100	nA
Emitter Cut-off Current	IEBO	VEBO = -6.0 V, IC = 0			-100	nA
DC Current Gain *	hFE1	VCE = -2.0 V, IC = -0.5 A	140	280	560	
	hFE2	VCE = -2.0 V, IC = -3.0 A	70			
Base to Emitter Voltage *	VBE	VCE = -2.0 V, IC = -0.05 A	-600	-660	-700	mV
Collector Saturation Voltage *	VCE(sat)1	IC = -2.0 A, IB = -0.1 A		-240	-350	mV
Collector Saturation Voltage *	VCE(sat)2	IC = -3.0 A, IB = -0.15 A		-350	-550	mV
Base Saturation Voltage *	VBE(sat)	IC = -2.0 A, IB = -0.1 A		-0.95	-1.2	V
Gain Bandwidth Product	fT	VCE = □3.0 V, IE = 0.5 A		320		MHz
Output Capacitance	Cob	VCB = □10 V, IE = 0, f = 1 MHz		45		pF
Turn-on Time	ton	IC = -1.0 A, VCC = -10 V, RL = 5.0 Ω, IB1 = -IB2 = -0.1 A,		70		ns
Storage Time	tstg			110		ns
Fall Time	tr			40		ns

* Pulsed: PW ≤ 350 μs, Duty Cycle ≤ 2%.

■ hFE Classification

Marking	ZX	ZY	ZZ
hFE	140~280	200~400	280~560