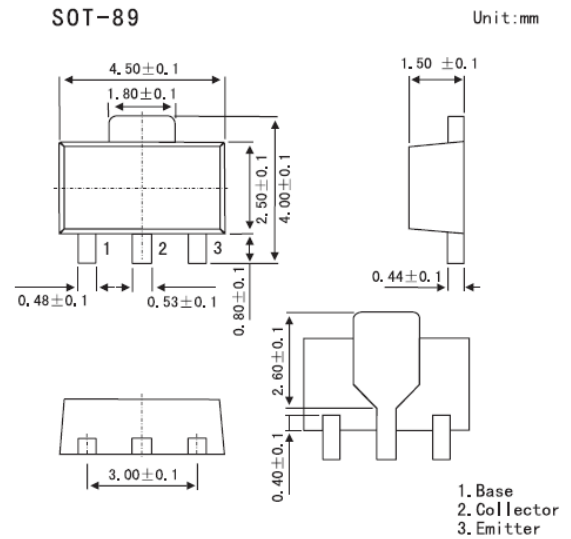


PNP Epitaxial Planar Silicon Transistors

Features

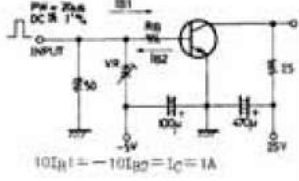
- Adoption of FBET, MBIT processes.
- Low collector-to-emitter saturation voltage.
- Fast switching speed.
- Large current capacity and wide ASO.



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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	-60	V
Collector-emitter voltage	V_{CEO}	-50	V
Emitter-base voltage	V_{EBO}	-6	V
Collector current	I_C	-3	A
Collector current (pulse)	I_{CP}	-6	A
Collector dissipation	P_C	500	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit	
Collector cutoff current	I_{CBO}	$V_{CB} = -40V, I_E = 0$			-1	μA	
Emitter cutoff current	I_{EBO}	$V_{CB} = -4V, I_E = 0$			-1	μA	
DC current Gain	h_{FE}	$V_{CE} = -2V, I_C = -100\text{mA}$	100		560		
Gain bandwidth product	f_T	$V_{CE} = -10V, I_C = -50\text{mA}$		150		MHz	
Output capacitance	C_{ob}	$V_{CB} = -10V, f = 1\text{MHz}$		39		pF	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -2A, I_B = -100\text{mA}$		-0.35	-0.7	V	
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -2A, I_B = -100\text{mA}$		-0.94	-1.2	V	
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10\mu\text{A}, I_E = 0$	-60			V	
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, R_{BE} = \infty$	-50			V	
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu\text{A}, I_C = 0$	-6			V	
Turn-on time	t_{on}	Switching Time Test Circuit 		70		ns	
Storage time	t_{stg}				450		ns
Fall time	t_f				35		ns

h_{FE} Classification

Marking	BG			
	R	S	T	U
h_{FE}	100~200	140~280	200~400	280~560