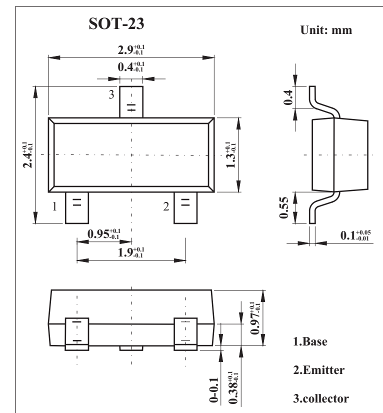
PNP Epitaxial Planar Silicon Transistor

2SA1580



Features

- High f_T.
- Small reverse transfer capacitance.
- Adoption of FBET process.

Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-70	V
Collector-emitter voltage	V_{CEO}	-60	V
Emitter-base voltage	V_{EBO}	-4	V
Collector current	I_C	-50	mA
Collector current (pulse)	I_{cp}	-100	mA
Collector dissipation	P_C	200	mW
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	V_{CB} = -40V, I_E=0			-0.1	μA
Emitter cutoff current	I_{EBO}	V_{EB} = -3V, I_C=0			-1	μA
DC current gain	h_{FE}	V_{CE} = -10V , I_C = -10mA	60		270	
Gain bandwidth product	f_T	V_{CE} = -10V , I_C = -10mA	350	700		MHz
Base-collector time constant	r_{bb},C_c	V_{CE} = -10V , I_C = -10mA		8		ps
Output capacitance	C_{ob}	V_{CB} = -10V , f = 1.0MHz		1.7		pF
Reverse transfer capacitance	C_{re}	V_{CB} = -10V , f = 1.0MHz		1.3		pF
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = -20mA , I_B = -2mA			-0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C = -20mA , I_B = -2mA			-1	V
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C = -10μA , I_E = 0	-70			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C = -1mA , R_{BE} = ∞	-60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E = -10μA , I_C = 0	-4			V

h_{FE} Classification

Marking	QL		
Rank	3	4	5
hFE	60～120	90～180	135～270