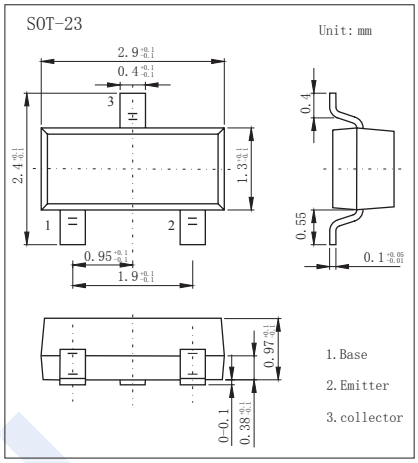
PNP Transistors

2SA1580



■ Features

- High fT.
- Small reverse transfer capacitance.
- Adoption of FBET process.
- Complementary to 2SC4104

■ 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	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	I_C= -100 μA, I_E=0	-70			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= -1 mA, R_{BE}=∞	-60			
Emitter - base breakdown voltage	V_{EBO}	I_E= -100 μA, I_C=0	-4			
Collector-base cut-off current	I_{CBO}	V_{CB}= -40 V , I_E=0			-0.1	uA
Emitter cut-off current	I_{EBO}	V_{EB}= -3V , I_C=0			-1	
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	
DC current gain	h_{FE}	V_{CE}= -10, I_C= -10mA	60		270	
Base-collector time constant	rbb,Cc	V_{CE}= -10V, I_C= 10mA		8		ps
Reverse transfer capacitance	Cre	V_{CB}= -10V, f=1MHz		1.3		pF
Output capacitance	Cob	V_{CB}= -10V, f=1MHz		1.7		
Transition frequency	f_T	V_{CE}= -6V, I_E= 10mA		180		MHz

■ Classification of hfe

Marking	QL3	QL4	QL5
Rank	3	4	5
hFE	60～120	90～180	135～270