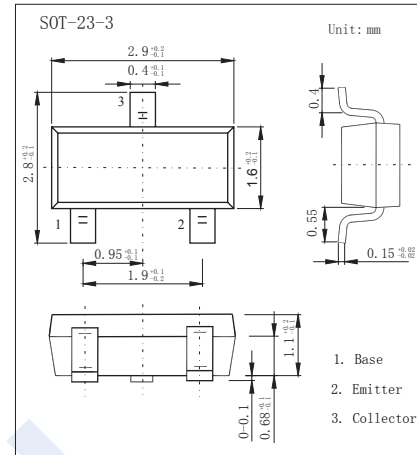


PNP Transistors

2SA1580-HF

■ Features

- High fr.
- Small reverse transfer capacitance.
- Adoption of FBET process.
- Complementary to 2SC4104-HF
- Pb-Free Package May be Available. The G-Suffix Denotes a Pb-Free Lead Finish



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V _{CB0}	-70	V
Collector-emitter voltage	V _{CEO}	-60	V
Emitter-base voltage	V _{EB0}	-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	°C
Storage temperature	T _{stg}	-55 to +150	°C

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V _{CB0}	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 _{EB0}	I _E = -100 μA, I _C =0	-4			
Collector-base cut-off current	I _{CB0}	V _{CB} = -40 V, I _E =0			-0.1	μA
Emitter cut-off current	I _{EB0}	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	r _{bb} , C _c	V _{CE} = -10V, I _C = 10mA		8		ps
Reverse transfer capacitance	C _{re}	V _{CB} = -10V, f=1MHz		1.3		pF
Output capacitance	C _{ob}	V _{CB} = -10V, f=1MHz		1.7		
Transition frequency	f _T	V _{CE} = -6V, I _E = 10mA		180		MHz

■ Classification of h_{FE}

Type	2SA1580-QL3-HF	2SA1580-QL4-HF	2SA1580-QL5-HF
Range	60-120	90-180	135-270
Marking	QL3 _F	QL4 _F	QL5 _F