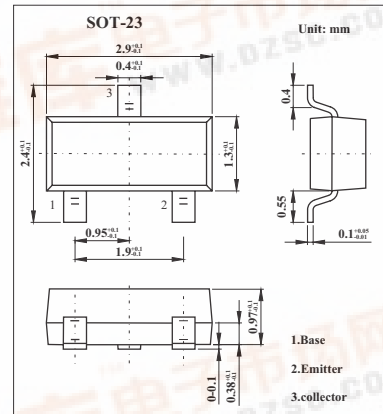


SMD Type Transistors

PNP Epitaxial Planar Silicon Transistor  
2SA1580

Features

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



Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V <sub>CB0</sub>	-70	V
Collector-emitter voltage	V <sub>CEO</sub>	-60	V
Emitter-base voltage	V <sub>EBO</sub>	-4	V
Collector current	I <sub>c</sub>	-50	mA
Collector current (pulse)	I <sub>cp</sub>	-100	mA
Collector dissipation	P <sub>c</sub>	200	mW
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	I <sub>CB0</sub>	V <sub>CB</sub> = -40V, I <sub>E</sub> =0			-0.1	μA
Emitter cutoff current	I <sub>EBO</sub>	V <sub>EB</sub> = -3V, I <sub>C</sub> =0			-1	μA
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> = -10V, I <sub>c</sub> = -10mA	60		270	
Gain bandwidth product	f <sub>T</sub>	V <sub>CE</sub> = -10V, I <sub>c</sub> = -10mA	350	700		MHz
Base-collector time constant	r <sub>bb,Cc</sub>	V <sub>CE</sub> = -10V, I <sub>c</sub> = -10mA		8		ps
Output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = -10V, f = 1.0MHz		1.7		pF
Reverse transfer capacitance	C <sub>re</sub>	V <sub>CB</sub> = -10V, f = 1.0MHz		1.3		pF
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>c</sub> = -20mA, I <sub>b</sub> = -2mA			-0.6	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>c</sub> = -20mA, I <sub>b</sub> = -2mA			-1	V
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>c</sub> = -10μA, I <sub>E</sub> = 0	-70			V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>c</sub> = -1mA, R <sub>BE</sub> = ∞	-60			V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> = -10μA, I <sub>c</sub> = 0	-4			V

hFE Classification

Marking	QL		
Rank	3	4	5
h <sub>FE</sub>	60~120	90~180	135~270

