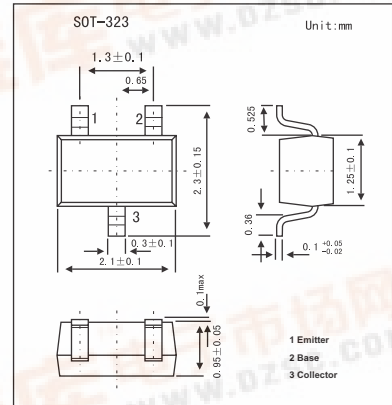


SMD Type Transistors

PNP Epitaxial Planar Silicon Transistors  
2SA1745

Features

- Very small-sized package.
- Low collector-to-emitter saturation voltage.



Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V <sub>CB0</sub>	-20	V
Collector-emitter voltage	V <sub>CEO</sub>	-15	V
Emitter-base voltage	V <sub>EBO</sub>	-5	V
Collector current	I <sub>C</sub>	-500	mA
Collector current (pulse)	I <sub>CP</sub>	-1	A
Collector dissipation	P <sub>C</sub>	150	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	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	I <sub>CBO</sub>	V <sub>CB</sub> = -15V, I <sub>E</sub> = 0			-0.1	nA
Emitter cutoff current	I <sub>EBO</sub>	V <sub>EB</sub> = -4V, I <sub>C</sub> = 0			-0.1	nA
DC current Gain	h <sub>FE</sub>	V <sub>CE</sub> = -2V, I <sub>C</sub> = -10mA	135		600	
Gain bandwidth product	f <sub>T</sub>	V <sub>CE</sub> = -2V, I <sub>C</sub> = -50mA		400		MHz
Common base output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = -10V, f = 1MHz		6.5		pF
Collector-to-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = -5mA, I <sub>B</sub> = -0.5mA		-15	-35	mV
		I <sub>C</sub> = -200mA, I <sub>B</sub> = -10mA		-200	-360	mV
Base-to-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = -200mA, I <sub>B</sub> = -10mA		-0.95	-1.2	V
Collector-to-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = -10μA, I <sub>E</sub> = 0	-20			V
Collector-to-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = -1mA, R <sub>BE</sub> = ∞	-15			V
Emitter-to-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> = -10μA, I <sub>C</sub> = 0	-5			V

hFE Classification

Marking	ES		
	5	6	7
Rank	5	6	7
hFE	135~270	200~400	300~600

