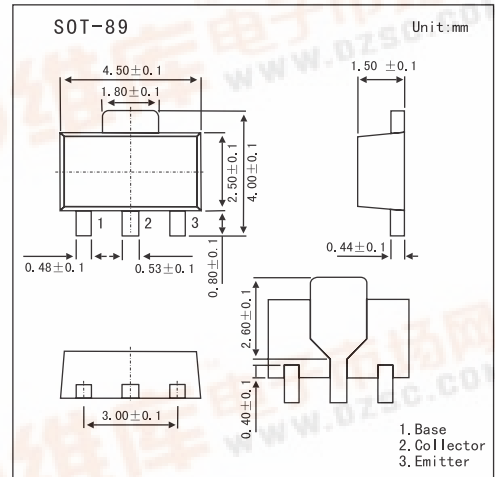


SMD Type Transistors

NPN Epitaxial Planar Silicon Transistor  
2SD1619

Features

- Very small size making it easy to provide highdensity, small-sized hybrid ICs.



Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V <sub>CB0</sub>	25	V
Collector-emitter voltage	V <sub>CEO</sub>	25	V
Emitter-base voltage	V <sub>EBO</sub>	5	V
Collector current	I <sub>C</sub>	1	A
Collector current (pulse)	I <sub>CP</sub>	2	A
Collector dissipation	P <sub>C</sub>	500	mW
	P <sub>C</sub> *	1.3	W
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

\* Mounted on ceramic board(250mm2X0.8mm)

Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	I <sub>CBO</sub>	V <sub>CB</sub> = 20 V, I <sub>E</sub> = 0			0.1	μA
Emitter cutoff current	I <sub>EBO</sub>	V <sub>EB</sub> = 4 V, I <sub>C</sub> = 0			0.1	μA
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> = 2 V, I <sub>C</sub> = 50 mA	100		560	
Gain bandwidth product	f <sub>T</sub>	V <sub>CE</sub> = 10 V, I <sub>C</sub> = 50 mA		180		MHz
Output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 10 V, f = 1.0MHz		15		pF
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = 500 mA, I <sub>B</sub> = 50 mA		0.1	0.3	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = 500 mA, I <sub>B</sub> = 50 mA		0.85	1.2	V
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = 10μA, I <sub>E</sub> = 0	25			V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = 1mA, R <sub>BE</sub> = ∞	25			V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> = 10μA, I <sub>C</sub> = 0	5			V

hFE Classification

Marking	DB			
	R	S	T	U
Rank				
hFE	100~200	140~280	200~400	280~560

