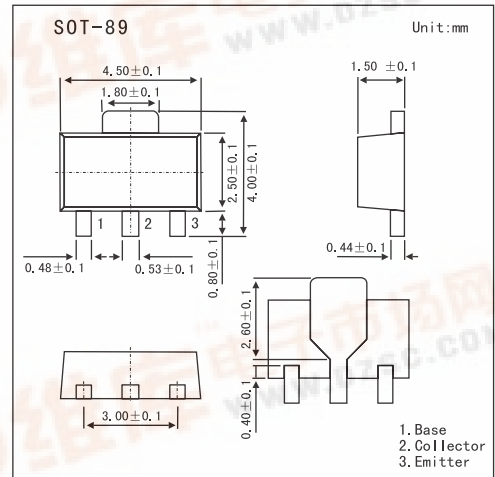


SMD Type Transistors

Silicon NPN Epitaxial Planar Type  
2SD875

Features

- Large collector power dissipation PC.
- High collector-emitter voltage (Base open) V<sub>CEO</sub>.
- Mini power type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.



Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V <sub>CB0</sub>	80	V
Collector-emitter voltage	V <sub>CEO</sub>	80	V
Emitter-base voltage	V <sub>EB0</sub>	5	V
Collector current	I <sub>C</sub>	0.5	A
Peak collector current	I <sub>CP</sub>	1	A
Collector power dissipation	P <sub>C</sub>	1	W
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-base voltage	V <sub>CB0</sub>	I <sub>C</sub> = 10 μA, I <sub>E</sub> = 0	80			V
Collector-emitter voltage	V <sub>CEO</sub>	I <sub>C</sub> = 100 μA, I <sub>B</sub> = 0	80			V
Emitter-base voltage	V <sub>EB0</sub>	I <sub>E</sub> = 10 μA, I <sub>C</sub> = 0	5			V
Collector-base cutoff current	I <sub>CB0</sub>	V <sub>CB</sub> = 20 V, I <sub>B</sub> = 0			0.1	μA
Forward current transfer ratio	h <sub>FE</sub>	V <sub>CE</sub> = 10 V, I <sub>C</sub> = 150 mA	130		330	?
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = 300 mA, I <sub>B</sub> = 30 mA		0.2	0.4	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = 300 mA, I <sub>B</sub> = 30 mA		0.85	1.2	V
Transition frequency	f <sub>T</sub>	V <sub>CB</sub> = 10 V, I <sub>E</sub> = -50 mA, f = 200 MHz		120		MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 10 V, I <sub>E</sub> = 0, f = 1 MHz		11	20	pF

hFE Classification

Marking	X	
Rank	R	S
hFE	130~220	185~330

