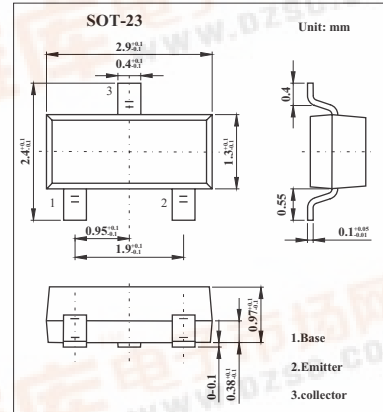


SMD Type Transistors

NPN Epitaxial Planar Silicon Transistors  
2SD1935

■ Features

- Large current capacity.
- Low collector to emitter saturation voltage.
- Very small-sized package permitting sets to be made smaller and slimer.



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V <sub>CB0</sub>	15	V
Collector-emitter voltage	V <sub>CEO</sub>	15	V
Emitter-base voltage	V <sub>EB0</sub>	5	V
Collector current	I <sub>c</sub>	0.8	A
Collector current (pulse)	I <sub>CP</sub>	3	A
Collector dissipation	P <sub>c</sub>	200	mW
Jumction 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>CBO</sub>	V <sub>CB</sub> = 12V , I <sub>E</sub> = 0			100	nA
Emitter cutoff current	I <sub>EBO</sub>	V <sub>EB</sub> = 4V , I <sub>c</sub> = 0			100	nA
DC current Gain	h <sub>FE</sub>	V <sub>CE</sub> = 2V , I <sub>c</sub> = 50mA	135		900	
Gain bandwidth product	f <sub>T</sub>	V <sub>CE</sub> = 2V , I <sub>c</sub> = 50mA		200		MHz
Output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 10V , f = 1MHz		10		pF
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>c</sub> = 5mA , I <sub>B</sub> = 0.5mA		10	25	mV
		I <sub>c</sub> = 400mA , I <sub>B</sub> = 20mA		100	200	mV
Base-to-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>c</sub> = 400mA , I <sub>B</sub> = 20mA		0.9	1.2	V
Collector-to-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>c</sub> = 10μA , I <sub>E</sub> = 0	15			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	CT			
Rank	5	6	7	8
	135~270	200~400	300~600	450~900

