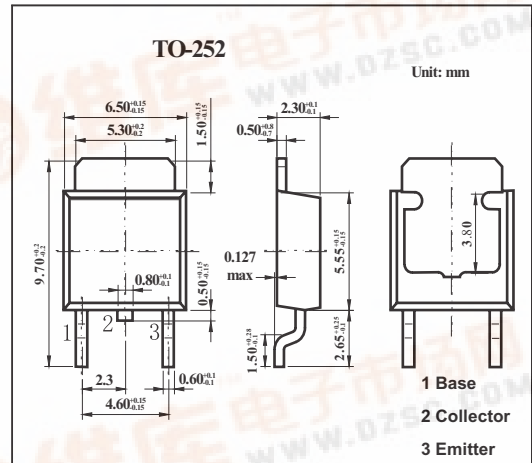


SMD Type Transistors

Silicon NPN Epitaxial Transistor  
2SD1220

- Features
- Power Amplifier Applications



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V <sub>CB0</sub>	150	V
Collector-emitter voltage	V <sub>CEO</sub>	150	V
Emitter-base voltage	V <sub>EBO</sub>	6	V
Collector current	I <sub>c</sub>	1.5	A
Base current	I <sub>b</sub>	1	A
Collector power dissipation Ta = 25°C Tc = 25°C	P <sub>c</sub>	1 10	W
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature range	T <sub>stg</sub>	-55 to +150	°C

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cut-off current	I <sub>CB0</sub>	V <sub>CB</sub> = 150 V, I <sub>E</sub> = 0			1.0	µA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = 6 V, I <sub>c</sub> = 0			1.0	µA
Collector-emitter breakdown voltage	V <sub>(BR) CEO</sub>	I <sub>c</sub> = 10 mA, I <sub>b</sub> = 0	150			V
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> = 5 V, I <sub>c</sub> = 200 mA	60		320	
Collector-emitter saturation voltage	V <sub>CE (sat)</sub>	I <sub>c</sub> = 500 mA, I <sub>b</sub> = 50 mA			1.5	V
Base-emitter voltage	V <sub>BE</sub>	V <sub>CE</sub> = 5 V, I <sub>c</sub> = 5 mA	0.5		0.8	V
Transition frequency	f <sub>t</sub>	V <sub>CE</sub> = 5 V, I <sub>c</sub> = 200 mA	20	100		MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 10 V, I <sub>E</sub> = 0, f = 1 MHz		13	20	pF

■ hFE Classification

Marking	D1220		
Rank	R	O	Y
hFE	60 to 120	100 to 200	160 to 320

