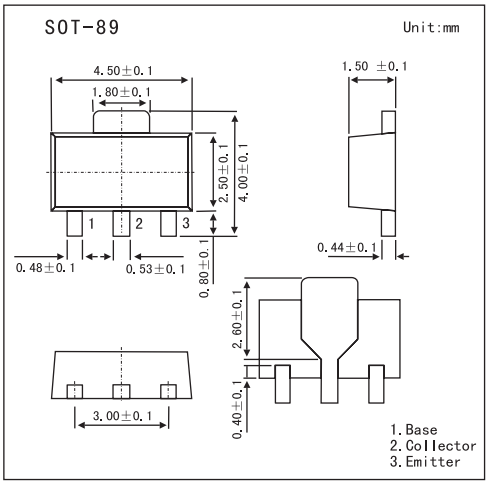
NPN Epitaxial Planar Silicon Transistor

2SD1619



■ Features

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

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	25	V
Collector-emitter voltage	V_{CEO}	25	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	1	A
Collector current (pulse)	I_{CP}	2	A
Collector dissipation	P_C	500	mW
	P_C *	1.3	W
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

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

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	V_{CB} = 20 V, I_E=0			0.1	μA
Emitter cutoff current	I_{EBO}	V_{EB} = 4 V, I_C=0			0.1	μA
DC current gain	h_{FE}	V_{CE} = 2 V , I_C = 50 mA	100		560	
Gain bandwidth product	f_T	V_{CE} = 10 V , I_C = 50 mA		180		MHz
Output capacitance	C_{ob}	V_{CB} = 10 V , f = 1.0MHz		15		pF
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = 500 mA , I_B = 50 mA		0.1	0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C = 500 mA , I_B = 50 mA		0.85	1.2	V
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C = 10μA , I_E = 0	25			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C = 1mA , R_{BE} = ∞	25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E = 10μA , I_C = 0	5			V

■ h_{FE} Classification

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