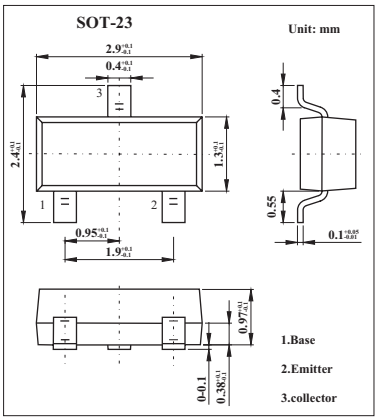
NPN Silicon Epitaxial Transistor

2SD596



■ Features

- Micro package.
- High dc current gain. hFE:200TYP. (V_{CE}=1V, I_C=100mA)

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	30	V
Collector to emitter voltage	V_{CEO}	25	V
Emitter to base voltage	V_{EBO}	5	V
Collector current (DC)	I_C	700	mA
Total power dissipation	P_T	200	mW
Junction temperature	T_j	150	℃
Storage temperature range	T_{stg}	-55 to +150	℃

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	V_{CB} = 30 V, I_E = 0			100	nA
Emitter cutoff current	I_{EBO}	V_{EB} = 5.0 V, I_C = 0			100	nA
DC current gain *	h_{FE}	V_{CE} = 1.0 V, I_C = 100 mA	110	200	400	
Base to emitter voltage *	V_{BE}	V_{CE} = 6.0 V, I_C = 10 mA	600	640	700	mV
Collector saturation voltage *	$V_{CE(sat)}$	I_C = 700 mA, I_B = 70 mA		0.22	0.6	V
Output capacitance	C_{ob}	V_{CB} = 6.0 V, I_E = 0, f = 10 MHz		12		pF
Gain bandwidth product	f_T	V_{CE} = 6.0 V, I_E = -10 mA		170		MHz

* Pulsed: PW ≤ 350 μs, duty cycle ≤ 2%

■ h_{FE} Classification

Marking	DV				
Rank	1	2	3	4	5
h_{FE}	110～180	135～220	170～270	200～320	250～400