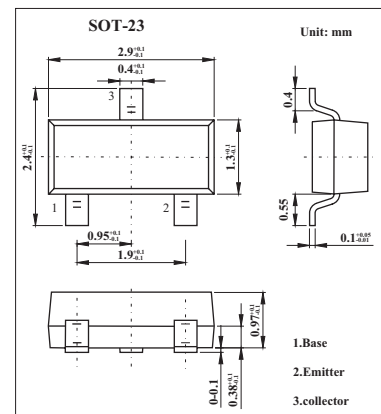


NPN Silicon Epitaxial Transistor

2SD596

■ Features

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



■ Absolute Maximum Ratings $T_a = 25^\circ C$

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	$^\circ C$
Storage temperature range	T_{stg}	-55 to +150	$^\circ C$

■ Electrical Characteristics $T_a = 25^\circ C$

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: $PW \leq 350 \mu s$, duty cycle $\leq 2\%$

■ h_{FE} Classification

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