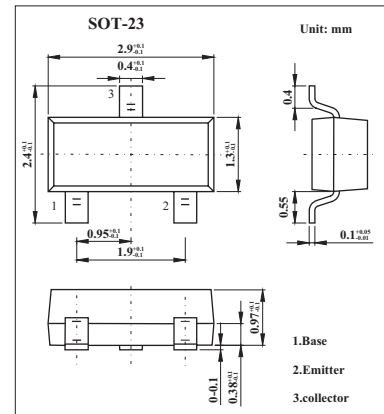


NPN Silicon Epitaxial Transistor

2SC3583

■ Features

- NF 1.2 dB TYP. @f = 1.0 GHz
- Ga 13 dB TYP. @f = 1.0 GHz



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector to base voltage	V _{CB0}	20	V
Collector to emitter voltage	V _{CEO}	10	V
Emitter to base voltage	V _{EB0}	1.5	V
Collector current	I _C	65	mA
Total power dissipation	P _{tot}	200	mW
Junction temperature	T _j	150	°C
Storage temperature range	T _{stg}	-65 to +150	°C

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	I _{CBO}	V _{CB} = 10 V, I _E = 0			1.0	μA
Emitter cutoff current	I _{EBO}	V _{EB} = 1 V, I _E = 0			1.0	μA
DC current gain *1	h _{FE}	V _{CE} = 8 V, I _C = 20 mA	50	100	250	
Gain bandwidth product	f _T	V _{CE} = 8 V, I _C = 20 mA		9		GHz
Feed-Back Capacitance	C _{re} *2	V _{CB} = 10 V, I _E = 0, f = 1.0 MHz		0.35	0.9	pF
Insertion Power Gain	S _{21e} ²	V _{CE} = 8 V, I _C = 20 mA, f = 1.0 GHz	11	13		dB
Maximum Available Gain	MAG	V _{CE} = 8 V, I _C = 20 mA, f = 1.0 GHz		15		dB
Noise Figure	NF	V _{CE} = 8 V, I _E = 7 mA, f = 1.0 GHz		1.2	2.5	dB

*1.Pulse Measurement PW ≤ 350μs, Duty Cycle ≤ 2 %

*2.The emitter terminal and the case shall be connected to the guard terminal of the three-terminal capacitance bridge.

■ h_{FE} Classification

Marking	R33	R34	R35
Rank	R33/Q	R34/R	R35/S
h _{FE}	50~100	80~160	125~250