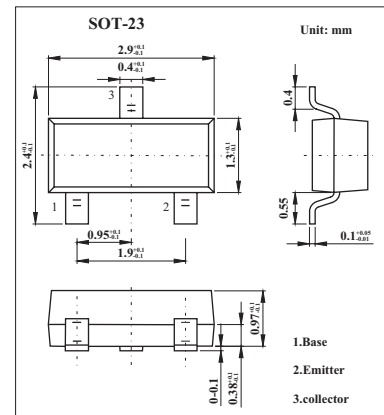


NPN Epitaxial Planar Silicon Transistor

2SC3689

■ Features

- Small Cob (Cob=1.5pF typ).
- Adoption of FBET process.
- High DC current gain (hFE=800 to 3200).
- Low collector-to-emitter saturation voltage ($V_{CE(sat)} \leq 0.5V$).
- High V_{EBO} ($V_{EBO} \geq 15V$).



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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	60	V
Collector-emitter voltage	V_{CEO}	50	V
Emitter-base voltage	V_{EBO}	15	V
Collector current	I_C	100	mA
Collector current (pulse)	I_{cp}	200	mA
Collector dissipation	P_C	200	mW
Junction temperature	T_j	125	$^\circ C$
Storage temperature	T_{stg}	-55 to +125	$^\circ C$

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

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = 40V, I_E = 0$			0.1	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = 10V, I_C = 0$			0.1	μA
DC current gain	hFE	$V_{CE} = 5V, I_C = 10mA$	800	1500	3200	
Gain bandwidth product	fT	$V_{CE} = 10V, I_C = 10mA$		200		MHz
Output capacitance	Cob	$V_{CB} = 10V, f = 1.0MHz$		1.5		pF
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 50mA, I_B = 1mA$		0.1	0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 50mA, I_B = 1mA$		0.8	1.1	V
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 10\mu A, I_E = 0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1mA, R_{BE} = \infty$	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 10\mu A, I_C = 0$	15			V

■ Marking

Marking	GY
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