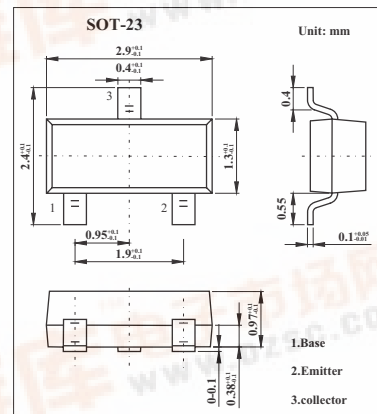


SMD Type Transistors

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 Ta = 25°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	°C
Storage temperature	$T_{stg}$	-55 to +125	°C

Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB} = 40V, I_E = 0$			0.1	$\mu A$
Emitter cutoff current	$I_{EBO}$	$V_{EB} = 10V, I_C = 0$			0.1	$\mu A$
DC current gain	$h_{FE}$	$V_{CE} = 5V, I_C = 10mA$	800	1500	3200	
Gain bandwidth product	$f_T$	$V_{CE} = 10V, I_C = 10mA$		200		MHz
Output capacitance	$C_{ob}$	$V_{CB} = 10V, f = 1.0MHz$		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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