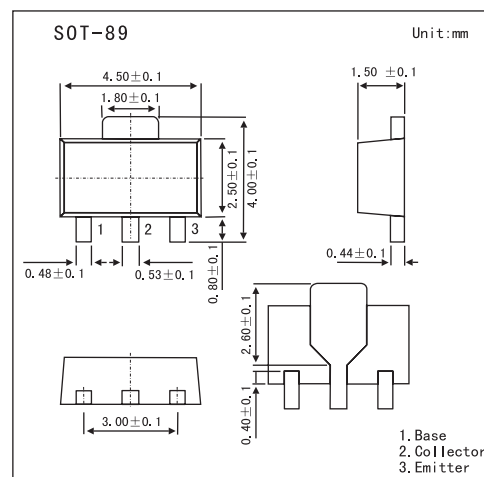


NPN Epitaxial Planar Silicon Transistor

2SC3650

■ Features

- High DC current gain ($h_{FE}=800$ to 3200).
- Low collector-to-emitter saturation voltage ($V_{CE(sat)} \leq 0.5V$).
- Large current capacity ($I_C=1.2V$).
- Very small size making it easy to provide highdensity, small-sized hybrid ICs.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	30	V
Collector-emitter voltage	V_{CEO}	25	V
Emitter-base voltage	V_{EBO}	15	V
Collector current	I_C	1.2	A
Collector current (pulse)	I_{CP}	2	A
Collector dissipation	P_C	500	mW
Junction temperature	T_j	150	$^\circ C$
Storage temperature	T_{stg}	-55 to +150	$^\circ C$

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	$V_{CB}=20V, I_E=0$			0.1	μA
Emitter cutoff current	I_{EBO}	$V_{EB}=10V, I_C=0$			0.1	μA
DC current gain	h_{FE}	$V_{CE}=5V, I_C=500mA$	800	1500	3200	
Gain bandwidth product	f_T	$V_{CE}=10V, I_C=50mA$		220		MHz
Output capacitance	C_{ob}	$V_{CB}=10V, f=1MHz$		17		pF
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500mA, I_B=10mA$		0.12	0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=500mA, I_B=10mA$		0.85	1.2	V
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, R_{BE}=\infty$	25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	15			V

■ Marking

Marking	CF
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