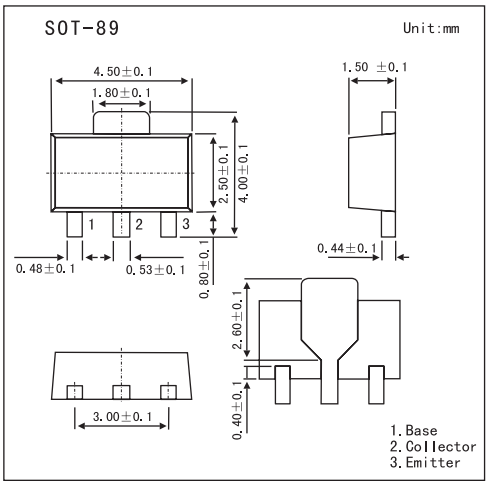
NPN Epitaxial Planar Silicon Transistor

2SC3650



■ Features

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

■ Absolute Maximum Ratings Ta = 25℃

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	℃
Storage temperature	T_{stg}	-55 to +150	℃

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	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=10μA, I_E=0	30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA, R_{BE}=∞	25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=10μA, I_C=0	15			V

■ Marking

Marking	CF