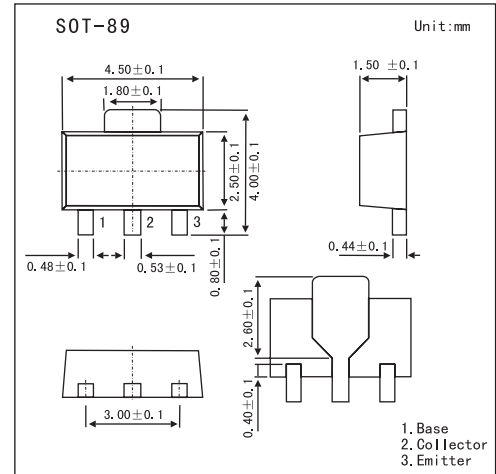


## NPN Epitaxial Planar Silicon Transistors

## 2SC3651

## ■ Features

- High DC current gain
- High breakdown voltage
- Low collector-to-emitter saturation voltage
- High  $V_{EBO}$  ( $V_{EBO} \geq 15V$ )
- Very small size making it easy to provide high-density small-sized hybrid IC's.

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

Parameter	Symbol	Rating	Unit
collector-base voltage	$V_{CB0}$	120	V
collector-emitter voltage	$V_{CE0}$	100	V
emitter-base voltage	$V_{EBO}$	15	V
collector current	$I_C$	200	mA
Collector Current (pulse)	$I_{CP}$	300	mA
Collector Dissipation	$P_C$	500	mA
		1.3 *	W
Junction Temperature	$T_J$	150	$^\circ\text{C}$
storage Temperature	$T_{stg}$	-55 to 150	$^\circ\text{C}$

\*Mounted on ceramic board (250mm<sup>2</sup>X0.8mm)

■ Electrical Characteristics  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
collector cutoff Current	$I_{CBO}$	$V_{CB}=80V, I_E=0$			0.1	$\mu\text{A}$
Emitter cutoff current	$I_{EBO}$	$V_{EB}=10V, I_C=0$			0.1	$\mu\text{A}$
DC Current Gain	$h_{FE}$	$V_{CE}=5V, I_C=10\text{mA}$	500	1000	2000	
		$V_{CE}=5V, I_C=100\text{mA}$	400			
Gain-Bandwidth product	$f_T$	$V_{CE}=10V, I_C=10\text{mA}$		150		MHz
Output Capacitance	$c_{ob}$	$V_{CB}=10V, f=1\text{MHz}$		6.5		pF
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100\text{mA}, I_B=2\text{mA}$		0.15	0.5	V
Base to Emitter Stauration Voltage	$V_{BE(sat)}$	$I_C=100\text{mA}, I_E=2\text{mA}$				V
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}, I_E=0$				V
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}, I_B=0$				V
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=10\mu\text{A}, I_C=0$				V

## ■ Marking

Marking	CG
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