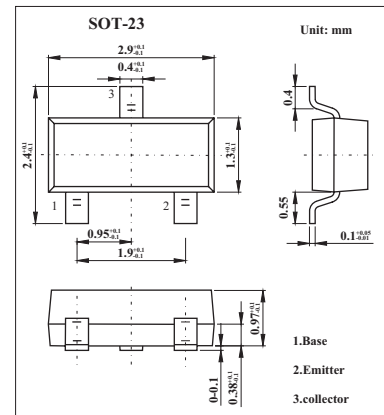


## Silicon NPN Epitaxial

## 2SC4209

## ■ Features

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	80	V
Collector-emitter voltage	$V_{CEO}$	80	V
Emitter-base voltage	$V_{EBO}$	5	V
Collector current	$I_c$	300	mA
Base current	$I_B$	60	mA
Collector power dissipation	$P_C$	200	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cut-off current	$I_{CBO}$	$V_{CB} = 50\text{ V}, I_E = 0$			0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = 5\text{ V}, I_c = 0$			0.1	$\mu\text{A}$
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_c = 5\text{ mA}, I_B = 0$	80			V
DC current gain	$h_{FE}$	$V_{CE} = 2\text{ V}, I_c = 50\text{ mA}$	70		240	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c = 200\text{ mA}, I_B = 10\text{ mA}$			0.5	V
Base-emitter voltage	$V_{BE}$	$V_{CE} = 2\text{ V}, I_c = 5\text{ mA}$	0.55		0.8	V
Transition frequency	$f_T$	$V_{CE} = 10\text{ V}, I_c = 10\text{ mA}$		100		MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$		10		pF

■  $h_{FE}$  Classification

Marking	C	
Rank	O	Y
$h_{FE}$	70~140	120~240