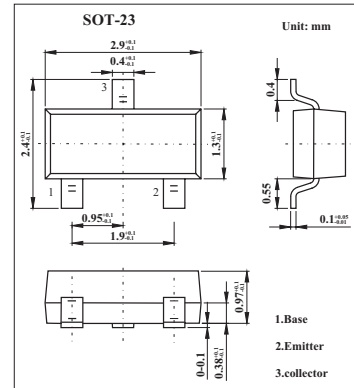


Silicon NPN Epitaxial

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_{CE0}	80	V
Emitter-base voltage	V_{EB0}	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_{CB0}	$V_{CB} = 50\text{ V}, I_E = 0$			0.1	μA
Emitter cut-off current	I_{EB0}	$V_{EB} = 5\text{ V}, I_C = 0$			0.1	μA
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