

# 2SC5609

Silicon PNP epitaxial planer type

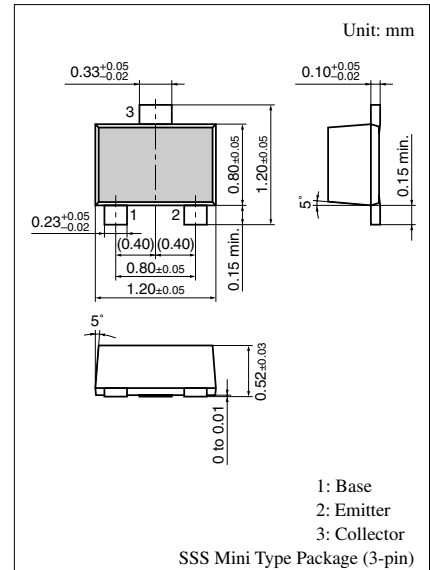
For general amplification  
Complementary to 2SA2021

### ■ Features

- High forward current transfer ratio  $h_{FE}$
- SSS-mini type package, allowing downsizing and thinning of the equipment and automatic insertion through the tape packing

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

Parameter	Symbol	Rating	Unit
Collector to base voltage	$V_{CBO}$	60	V
Collector to emitter voltage	$V_{CEO}$	50	V
Emitter to base voltage	$V_{EBO}$	7	V
Peak collector current	$I_{CP}$	200	mA
Collector current	$I_C$	100	mA
Collector power dissipation	$P_C$	100	mW
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +125	$^\circ\text{C}$



Marking Symbol: 3F

### ■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB} = 20\text{ V}, I_E = 0$			0.1	$\mu\text{A}$
	$I_{CEO}$	$V_{CE} = 10\text{ V}, I_B = 0$			100	$\mu\text{A}$
Collector to base voltage	$V_{CBO}$	$I_C = 10\ \mu\text{A}, I_E = 0$	60			V
Collector to emitter voltage	$V_{CEO}$	$I_C = 2\text{ mA}, I_B = 0$	50			V
Emitter to base voltage	$V_{EBO}$	$I_E = 10\ \mu\text{A}, I_C = 0$	7			V
Forward current transfer ratio	$h_{FE1}$	$V_{CE} = 10\text{ V}, I_C = 2\text{ mA}$	180		390	
	$h_{FE2}$	$V_{CE} = 2\text{ V}, I_C = 100\text{ mA}$	90			
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100\text{ mA}, I_B = 10\text{ mA}$		0.1	0.3	V
Collector output capacitance	$C_{ob}$	$V_{CB} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$		3.5		pF
Transition frequency	$f_T$	$V_{CB} = 10\text{ V}, I_E = -2\text{ mA}, f = 200\text{ MHz}$		80		MHz