

# 2SA2021

## Silicon PNP epitaxial planer type

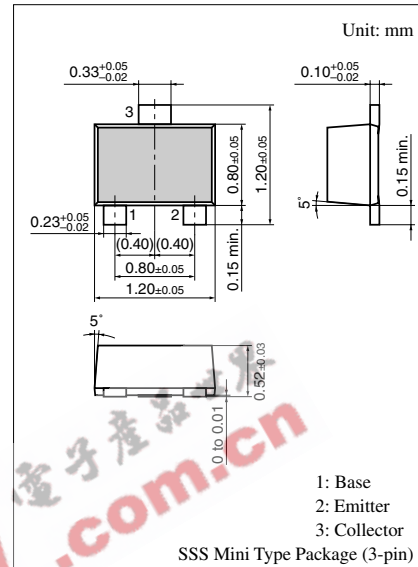
For general amplification  
Complementary to 2SC5609

### ■ 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: 3E

### ■ 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	$V_{CEO}$	$I_C = -100\ \mu\text{A}, I_B = 0$	-50			V
Emitter to base voltage	$V_{EBO}$	$I_E = -10\ \mu\text{A}, I_C = 0$	-7			V
Forward current transfer ratio	$h_{FE}$	$V_{CE} = -10\text{ V}, I_C = -2\text{ mA}$	180		390	
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100\text{ mA}, I_B = -10\text{ mA}$		-0.3	-0.5	V
Collector output capacitance	$C_{ob}$	$V_{CB} = -10\text{ V}, I_E = 0, f = 1\text{ MHz}$		2.7		pF
Transition frequency	$f_T$	$V_{CB} = -10\text{ V}, I_E = 1\text{ mA}, f = 200\text{ MHz}$		80		MHz