

2SC5580

Silicon NPN epitaxial planer type

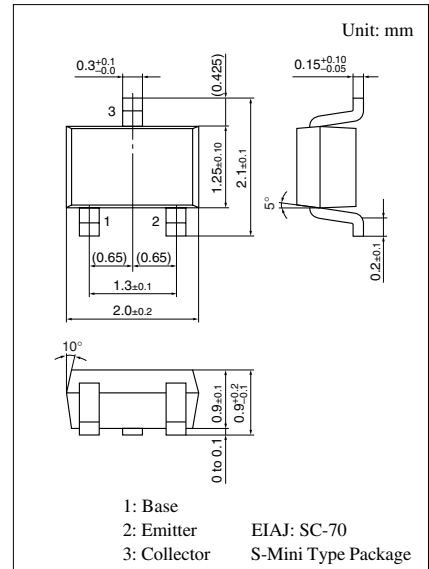
For high-frequency oscillation / switching

■ Features

- High transition frequency f_T
- S-mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.

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

Parameter	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	15	V
Collector to emitter voltage	V_{CEO}	8	V
Emitter to base voltage	V_{EBO}	3	V
Collector current	I_{C}	50	mA
Collector power dissipation	P_{C}	150	mW
Junction temperature	T_{j}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$



Marking Symbol: 3R

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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Emitter cutoff current	I_{EBO}	$V_{\text{EB}} = 2 \text{ V}, I_{\text{C}} = 0$			2	μA
Collector to base voltage	V_{CBO}	$I_{\text{C}} = 100 \mu\text{A}, I_{\text{E}} = 0$	15			V
Forward current transfer ratio	h_{FE}	$V_{\text{CE}} = 4 \text{ V}, I_{\text{C}} = 2 \text{ mA}$	100		350	
h_{FE} ratio	$h_{\text{FE(RATIO)}}$	$V_{\text{CE}} = 4 \text{ V}, I_{\text{C}} = 100 \mu\text{A}/2 \text{ mA}$	0.6		1.5	dB
Collector to emitter saturation voltage	$V_{\text{CE(sat)}}$	$I_{\text{C}} = 20 \text{ mA}, I_{\text{B}} = 4 \text{ mA}$			0.5	V
Transition frequency	f_{T}	$V_{\text{CE}} = 5 \text{ V}, I_{\text{C}} = 15 \text{ mA}, f = 200 \text{ MHz}$	0.6	1.1		GHz
Collector output capacitance	C_{ob}	$V_{\text{CB}} = 10 \text{ V}, I_{\text{E}} = 0, f = 1 \text{ MHz}$		1.2	1.6	pF