

# 2SC5632

## Silicon NPN epitaxial planar type

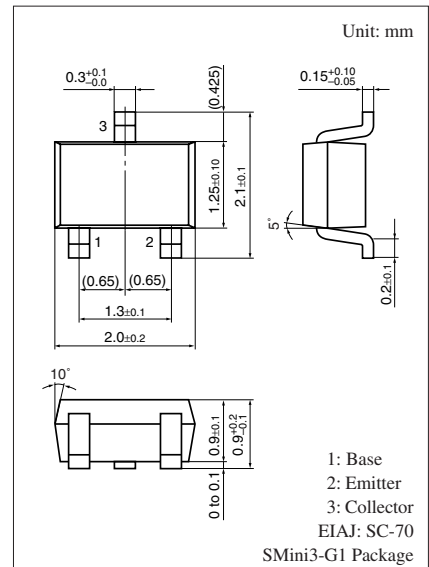
For high-frequency amplification and switching

### ■ Features

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

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

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	$V_{CBO}$	15	V
Collector-emitter voltage (Base open)	$V_{CEO}$	8	V
Emitter-base voltage (Collector open)	$V_{EBO}$	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: 2R

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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	$V_{CBO}$	$I_C = 100 \mu\text{A}$ , $I_E = 0$	15			V
Emitter-base cutoff current (Collector open)	$I_{EBO}$	$V_{EB} = 2 \text{ V}$ , $I_C = 0$			2	$\mu\text{A}$
Forward current transfer ratio	$h_{FE}$	$V_{CE} = 4 \text{ V}$ , $I_C = 2 \text{ mA}$	100		350	—
$h_{FE}$ ratio *	$\Delta h_{FE}$	$h_{FE2}$ : $V_{CE} = 4 \text{ V}$ , $I_C = 100 \mu\text{A}$	0.6	1.1	1.5	—
		$h_{FE1}$ : $V_{CE} = 4 \text{ V}$ , $I_C = 2 \text{ mA}$				
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 20 \text{ mA}$ , $I_B = 4 \text{ mA}$			0.1	V
Transition frequency	$f_T$	$V_{CE} = 5 \text{ V}$ , $I_C = 15 \text{ mA}$ , $f = 200 \text{ MHz}$	0.6	1.1		GHz
Collector output capacitance (Common base, input open circuited)	$C_{ob}$	$V_{CB} = 10 \text{ V}$ , $I_E = 0$ , $f = 1 \text{ MHz}$		1.0	1.6	pF

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. \*:  $\Delta h_{FE} = h_{FE2} / h_{FE1}$

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