

# 2SC5728

FOR HIGH FREQUENCY AMPLIFY APPLICATION  
SILICON NPN EPITAXIAL TYPE

## DESCRIPTION

2SC5728 is a ultra super mini package resin sealed silicon NPN epitaxial transistor, It is designed for high frequency application.

## FEATURE

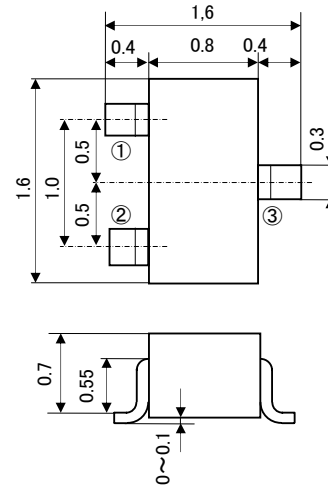
- High gain bandwidth product.  
ft=10.0GHz
- High gain, low noise.
- Can operate at low voltage.
- Super mini package for easy mounting

## APPLICATION

For TV tuners, high frequency amplifier , cellular phone system.

## OUTLINE DRAWING

Unit: mm



JEITA: SC-90

## TERMINAL CONNECTER

- ①: BASE
- ②: EMITTER
- ③: COLLECTOR

## MAXIMUM RATINGS (Ta=25°C)

Symbol	Parameter	Ratings	Unit
V <sub>CB0</sub>	Collector to Base voltage	15	V
V <sub>CE0</sub>	Collector to Emitter voltage	6	V
V <sub>EB0</sub>	Emitter to Base voltage	1.5	V
I <sub>O</sub>	Collector current	50	mA
P <sub>c</sub>	Collector dissipation	125	mW
T <sub>j</sub>	Junction temperature	+125	°C
T <sub>stg</sub>	Storage temperature	-55~+125	°C

## ELECTRICAL CHARACTERISTICS (Ta=25°C)

Parameter	Symbol	Test conditions	Limits			Unit
			Min	Typ	Max	
Collector cut off current	ICBO	V <sub>CB</sub> =10V, I <sub>E</sub> =0mA	-	-	1.0	μA
Emitter cut off current	IEBO	V <sub>EB</sub> =1V, I <sub>C</sub> =0mA	-	-	1.0	μA
DC forward current gain	hFE	V <sub>CE</sub> =3V, I <sub>C</sub> =10mA	30	-	250	
Gain bandwidth product	ft	V <sub>CE</sub> =3V, I <sub>E</sub> =10mA	-	10.0	-	GHz
Collector output capacitance	Cob	V <sub>CB</sub> =3V, I <sub>E</sub> =0mA, f=1MHz	-	0.7	-	pF
Insertion power gain	S <sub>21</sub>   <sup>2</sup>	V <sub>CE</sub> =3V, I <sub>C</sub> =10mA, f=1GHz	10.0	13.0	-	dB
Noise figure	NF	V <sub>CE</sub> =3V, I <sub>C</sub> =5mA, f=1GHz	-	1.4	-	dB



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