

**PRELIMINARY****2SC5727**

Notices: This is not a final specification.  
Some parametric limits are subject to change.

FOR HIGH FREQUENCY AMPLIFY APPLICATION  
SILICON NPN EPITAXIAL TYPE

**DESCRIPTION**

2SC5727 is a 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.

**MAXIMUM RATINGS**(Ta=25 )

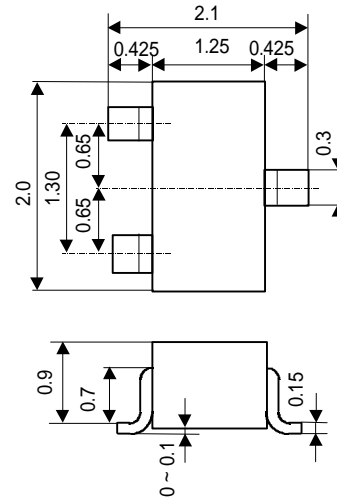
Symbol	Parameter	Ratings	Unit
V <sub>CBO</sub>	Collector to Base voltage	15	V
V <sub>CEO</sub>	Collector to Emitter voltage	6	V
V <sub>EBO</sub>	Emitter to Base voltage	1.5	V
I <sub>O</sub>	Collector current	50	mA
P <sub>c</sub>	Collector dissipation	125	mW
T <sub>j</sub>	Junction temperature	+ 125	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

**ELECTRICAL CHARACTERISTICS**(Ta=25 )

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

**OUTLINE DRAWING**

Unit: mm



JEITA: SC-70

**TERMINAL CONNECTER**

- : BASE
- : EMITTER
- : COLLECTOR



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