

**FOR LOW FREQUENCY POWER AMPLIFY APPLICATION  
SILICON NPN EPITAXIAL TYPE**

**DESCRIPTION**

2SC5214 is a resin sealed silicon NPN epitaxial type transistor.

It designed with high collector current and 2 to 3.5W low frequency power amplify.

Complementary with 2SA1947.

**FEATURE**

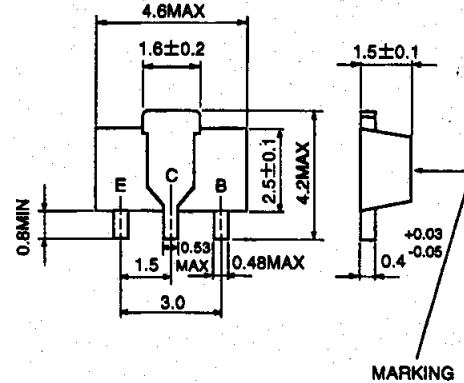
- High  $f_T$   $f_T=100\text{MHz typ}$
- Excellent linearity of DC forward current gain
- High collector current  $I_{CM}=1.5\text{A}$
- Small package for mounting

**APPLICATION**

Radio, tape recorder, small type stereo, etc. Low frequency power amplify circuit with 2 to 3.5W output.

**OUTLINE DRAWING**

Unit:mm



**TERMINAL CONNECTOR**

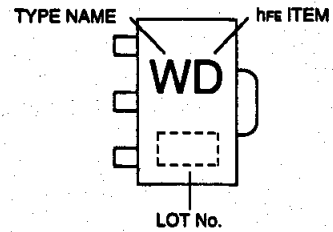
E : EMITTER  
C : COLLECTOR EIAJ : SC-62  
B : BASE JEDEC : -

Note)  
The dimension without tolerance represent central value.

**MAXIMUM RATINGS (Ta=25°C)**

Symbol	Parameter	Ratings	Unit
V <sub>CB0</sub>	Collector to Base voltage	30	V
V <sub>EB0</sub>	Emitter to Base voltage	4	V
V <sub>CE0</sub>	Collector to Emitter voltage	25	V
I <sub>CM</sub>	Peak collector current	1.5	A
I <sub>C</sub>	Collector current	1	A
P <sub>C</sub>	Collector dissipation(Ta=25°C)	500	mW
T <sub>J</sub>	Junction temperature	+150	°C
T <sub>stg</sub>	Storage temperature	-55 to +150	°C

**MARKING**



**ELECTRICAL CHARACTERISTICS (Ta=25°C)**

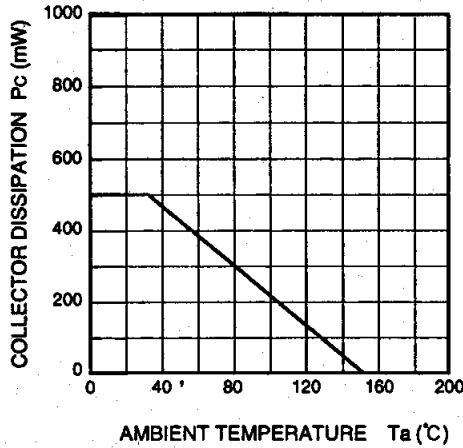
Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
V <sub>(BR)CBO</sub>	C to B break down voltage	I <sub>C</sub> =10 μA, I <sub>E</sub> =0	30			V
V <sub>(BR)EBO</sub>	E to B break down voltage	I <sub>E</sub> =10 μA, I <sub>C</sub> =0	4			V
V <sub>(BR)CEO</sub>	C to E break down voltage	I <sub>C</sub> =100 μA, R <sub>BE</sub> =∞	25			V
I <sub>CB0</sub>	Collector cut off current	V <sub>CB</sub> =25V, I <sub>E</sub> =0			1	μA
I <sub>EB0</sub>	Emitter cut off current	V <sub>BE</sub> =2V, I <sub>C</sub> =0			1	μA
h <sub>FE</sub> *	DC forward current gain	V <sub>CE</sub> =1V, I <sub>C</sub> =500mA	55		300	—
V <sub>CE(sat)</sub>	C to E saturation voltage	I <sub>C</sub> =500mA, I <sub>B</sub> =25mA			0.5	V
f <sub>T</sub>	Gain band width product	V <sub>CE</sub> =6V, I <sub>E</sub> =-10mA		100		MHz

\* : It shows h<sub>FE</sub> classification in right table.

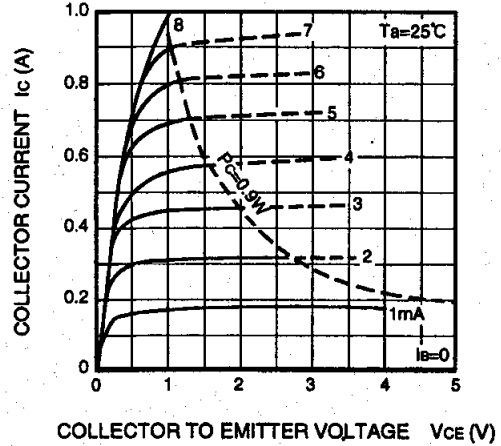
Marking	WC	WD	WE
h <sub>FE</sub>	55 to 110	90 to 180	150 to 300

TYPICAL CHARACTERISTICS

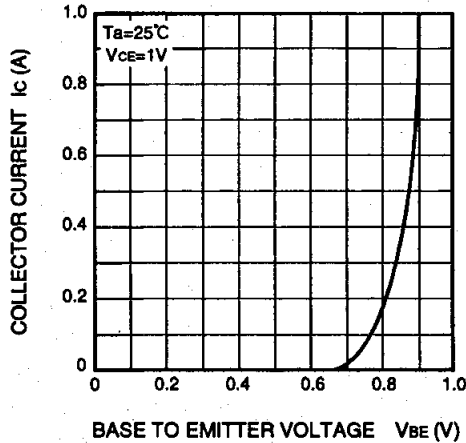
COLLECTOR DISSIPATION VS.  
AMBIENT TEMPERATURE



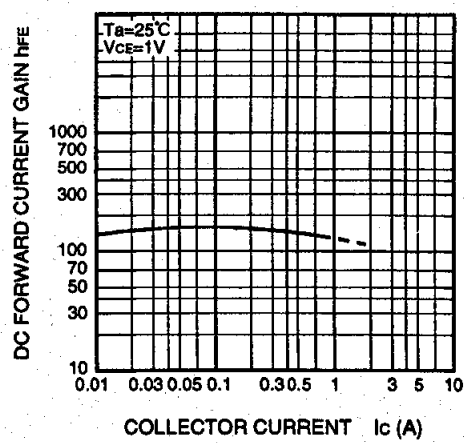
COMMON EMITTER OUTPUT



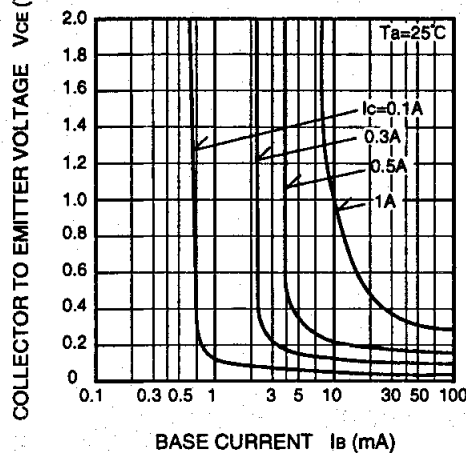
COMMON EMITTER TRANSFER



DC FORWARD CURRENT GAIN  
VS. COLLECTOR CURRENT



COLLECTOR TO EMITTER SATURATION  
VOLTAGE VS. BASE CURRENT



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