

**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

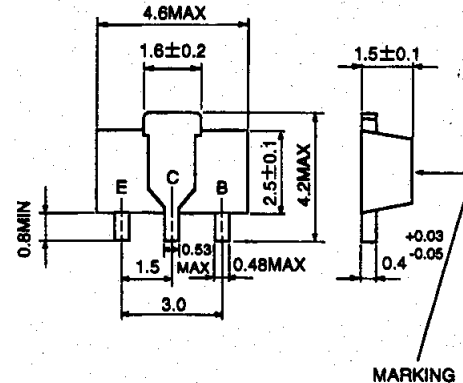
- High f_T $f_T=100\text{MHz}$ typ
- Excellent linearity of DC forward current gain
- High collector current $I_{CM}=1.5\text{A}$
- Small package for mounting

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**

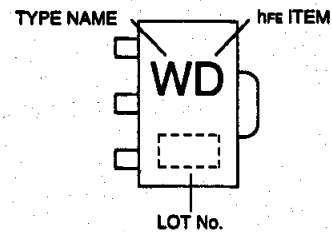
E : EMITTER
C : COLLECTOR EIAJ : SC-62
B : BASE JEDEC : -

Note)

The dimension without tolerance represent central value.

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

Symbol	Parameter	Rating	Unit
V_{CB0}	Collector to Base voltage	30	V
V_{EB0}	Emitter to Base voltage	4	V
V_{CE0}	Collector to Emitter voltage	25	V
I_{CM}	Peak collector current	1.5	A
I_C	Collector current	1	A
P_C	Collector dissipation($T_a=25^\circ\text{C}$)	500	mW
T_J	Junction temperature	+150	$^\circ\text{C}$
T_{stg}	Storage temperature	-55 to +150	$^\circ\text{C}$

MARKING**ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)**

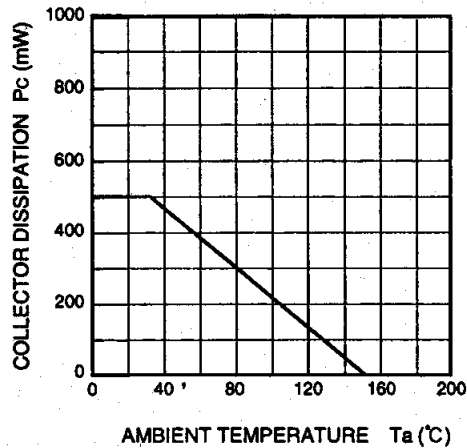
Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
$V_{(BR)CBO}$	C to B break down voltage	$I_C=10\mu\text{A}, I_E=0$	30			V
$V_{(BR)EBO}$	E to B break down voltage	$I_E=10\mu\text{A}, I_C=0$	4			V
$V_{(BR)CEO}$	C to E break down voltage	$I_C=100\mu\text{A}, R_{BE}=\infty$	25			V
I_{CBO}	Collector cut off current	$V_{CB}=25\text{V}, I_E=0$			1	μA
I_{EBO}	Emitter cut off current	$V_{BE}=2\text{V}, I_C=0$			1	μA
h_{FE}^*	DC forward current gain	$V_{CE}=1\text{V}, I_C=500\text{mA}$	55		300	—
$V_{CE(sat)}$	C to E saturation voltage	$I_C=500\text{mA}, I_B=25\text{mA}$			0.5	V
f_T	Gain band width product	$V_{CE}=6\text{V}, I_E=-10\text{mA}$		100		MHz

* : It shows h_{FE} classification in right table.

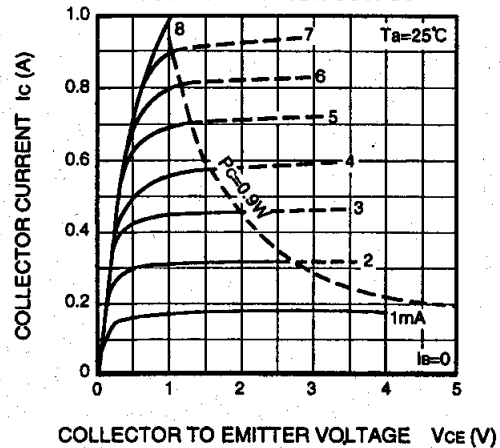
Marking	WC	WD	WE
h_{FE}	55 to 110	90 to 180	150 to 300

TYPICAL CHARACTERISTICS

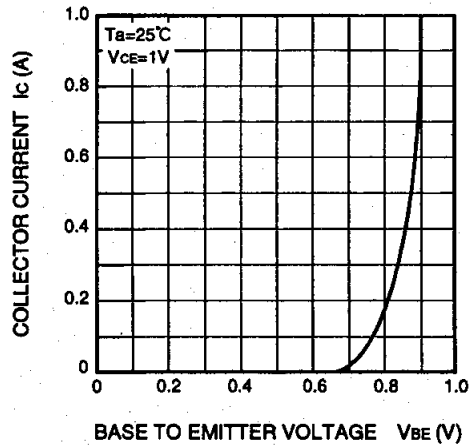
**COLLECTOR DISSIPATION VS.
AMBIENT TEMPERATURE**



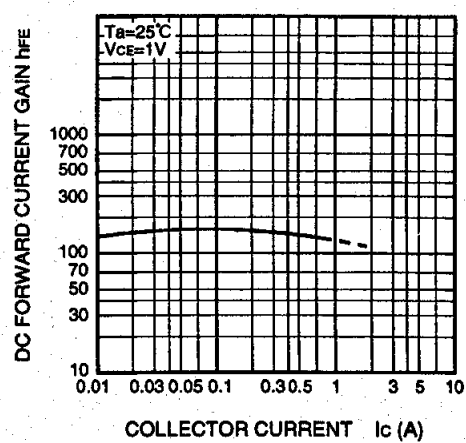
COMMON EMITTER OUTPUT



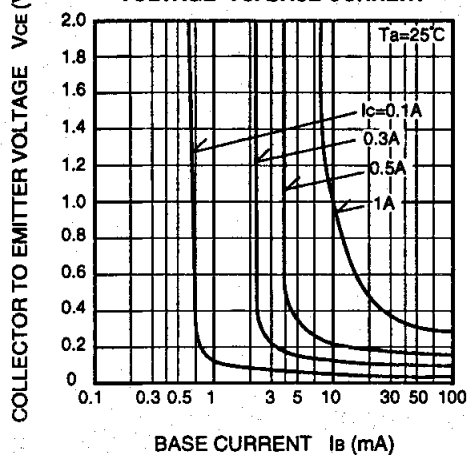
COMMON EMITTER TRANSFER



**DC FORWARD CURRENT GAIN
VS. COLLECTOR CURRENT**



**COLLECTOR TO EMITTER SATURATION
VOLTAGE VS. BASE CURRENT**





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