〈SMALL-SIGNAL TRANSISTOR〉

2SC5214

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

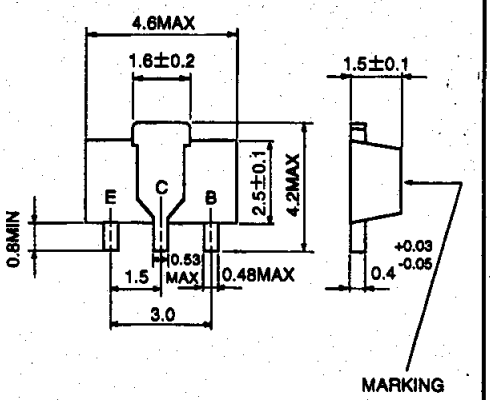
- High f_T f_T=100MHz typ
- Excellent linearity of DC forward current gain
- High collector current I_{CM}=1.5A
- Small package for mounting

APPLICATION

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

OUTLINE DRAWING

Unit:mm



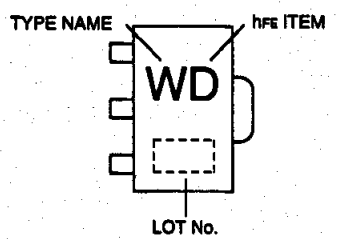
TERMINAL CONNECTOR

E : EMITTER
C : COLLECTOR
B : BASE

EIAJ : SC-62
JEDEC : –

Note)
The dimension without tolerance represent central value.

MARKING



MAXIMUM RATINGS (Ta=25℃)

Symbol	Parameter	Ratings	Unit
V_{CBO}	Collector to Base voltage	30	V
V_{EBO}	Emitter to Base voltage	4	V
V_{CEO}	Collector to Emitter voltage	25	V
I_{CM}	Peak collector current	1.5	A
I_C	Collector current	1	A
P_C	Collector dissipation(Ta=25℃)	500	mW
T_j	Junction temperature	+150	℃
T_{stg}	Storage temperature	-55 to +150	℃

ELECTRICAL CHARACTERISTICS (Ta=25℃)

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

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

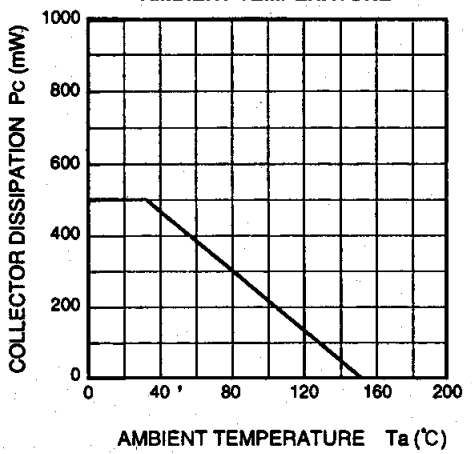
Marking	WC	WD	WE
h_{FE}	55 to 110	90 to 180	150 to 300

2SC5214

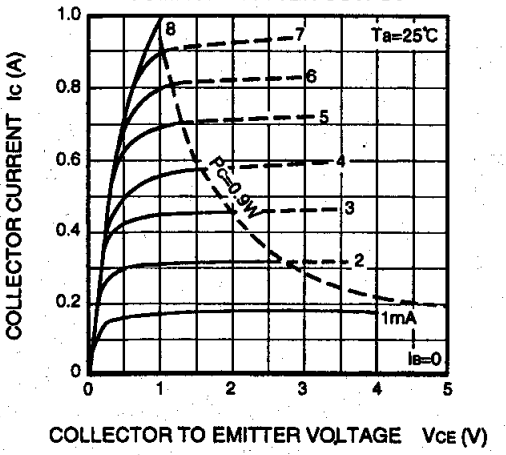
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TYPICAL CHARACTERISTICS

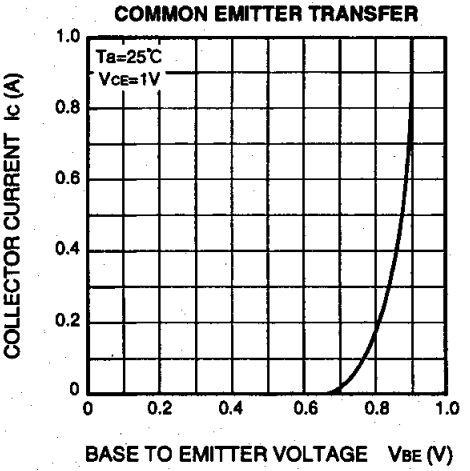
COLLECTOR DISSIPATION VS. AMBIENT TEMPERATURE



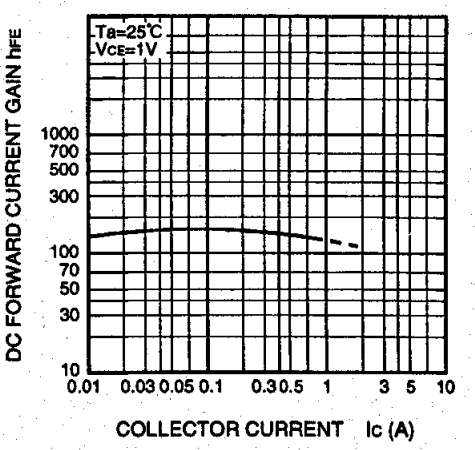
COMMON EMITTER OUTPUT



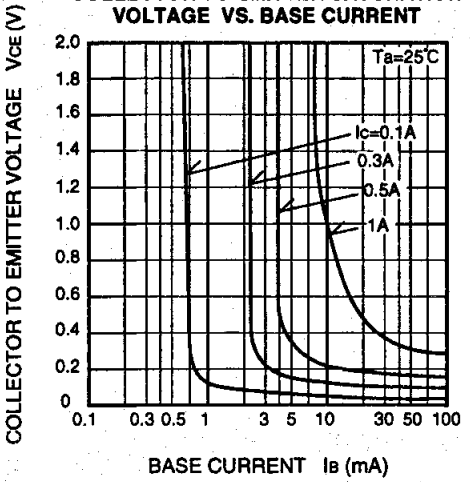
COMMON EMITTER TRANSFER



DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



COLLECTOR TO EMITTER SATURATION VOLTAGE VS. BASE CURRENT



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