〈SMALL-SIGNAL TRANSISTOR〉

2SC5211

FOR GENERAL-PURPOSE HIGH CURRENT DRIVE APPLICATION
SILICON NPN EPITAXIAL TYPE

DESCRIPTION

2SC5211 is a resin sealed silicon NPN epitaxial type transistor.
It designed with high collector current and high voltage.
Complementary with 2SA1945.

FEATURE

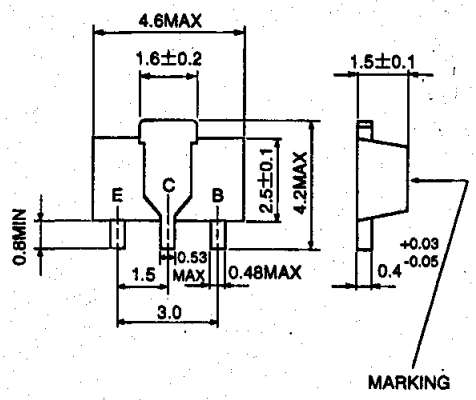
- High voltage V_{CEO}=50V
- High f_T f_T=150MHz typ
- Excellent linearity of DC forward current gain
- High collector current I_{CM}=600mA
- Small package for mounting

APPLICATION

For switching, small motor drive application.

OUTLINE DRAWING

Unit:mm



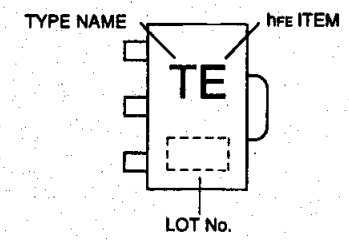
TERMINAL CONNECTOR

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	55	V
V_{EBO}	Emitter to Base voltage	4	V
V_{CEO}	Collector to Emitter voltage	50	V
I_{CM}	Peak collector current	600	mA
I_C	Collector current	400	mA
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=10 μA,I_E=0	55			V
$V_{(BR)EBO}$	E to B break down voltage	I_E=10 μA,I_C=0	4			V
$V_{(BR)CEO}$	C to E break down voltage	I_C=100 μA,R_{BE}=∞	50			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}=4V,I_C=100mA	90		500	—
$V_{CE(sat)}$	C to E saturation voltage	I_C=200mA,I_B=10mA		0.15	0.5	V
f_T	Gain band width product	V_{CE}=6V,I_E=-10mA		150		MHz

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

Marking	TD	TE	TF
h_{FE}	90 to 180	150 to 300	250 to 500

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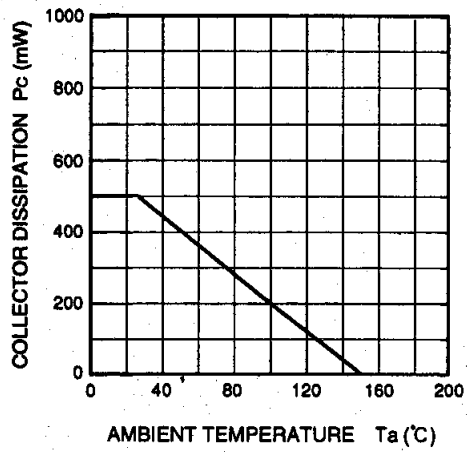
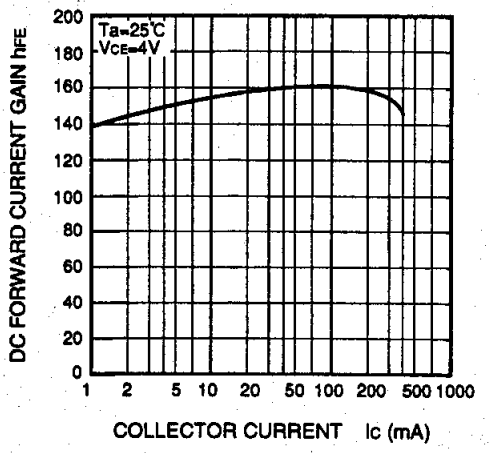
TYPICAL CHARACTERISTICS

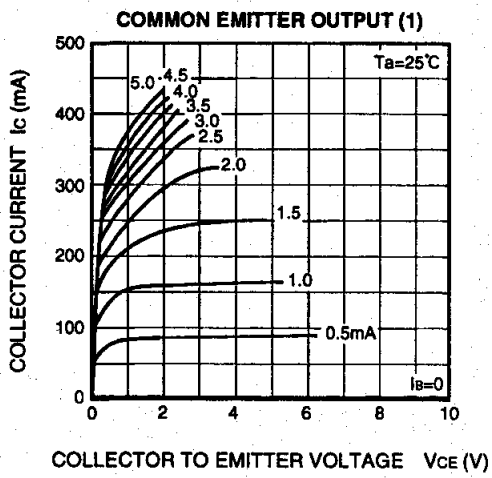
COLLECTOR DISSIPATION VS. AMBIENT TEMPERATURE



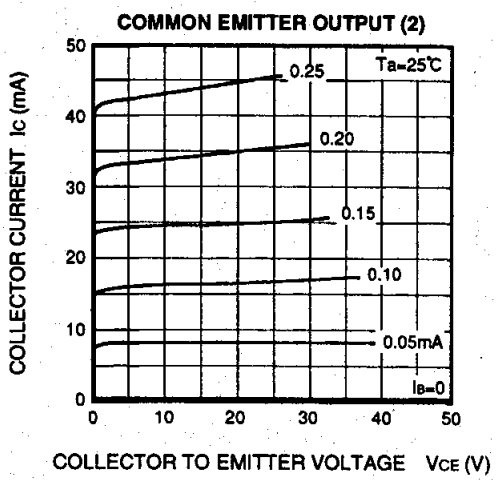
DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



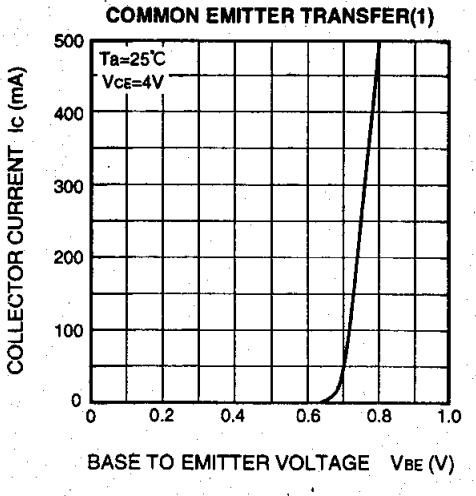
COMMON EMITTER OUTPUT (1)



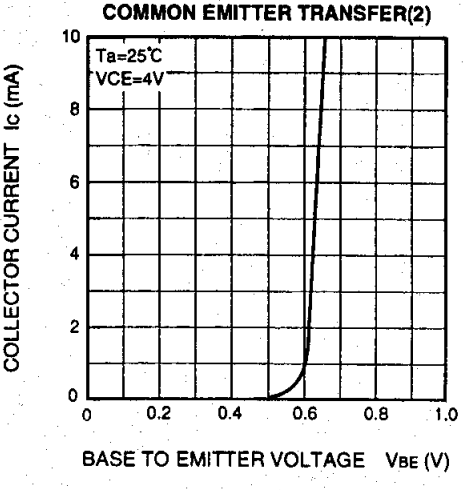
COMMON EMITTER OUTPUT (2)



COMMON EMITTER TRANSFER(1)



COMMON EMITTER TRANSFER(2)



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