

DESCRIPTION

2SC5212 is a resin sealed silicon NPN epitaxial type transistor.
It designed with high collector current and small $V_{CE(sat)}$.
Complementary with 2SA1946.

FEATURE

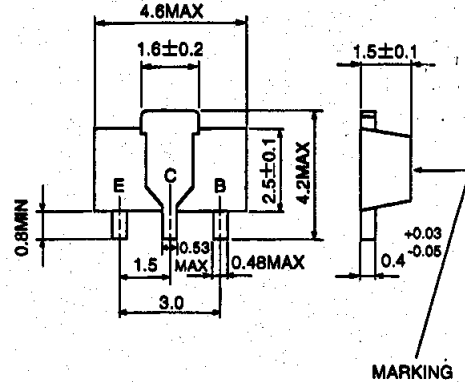
- Low collector saturation voltage
 $V_{CE(sat)}=0.2V$ typ
- High f_T $f_T=180MHz$ typ
- Excellent linearity of DC forward current gain
- High collector current $I_{CM}=1A$
- Small package for mounting

APPLICATION

For relay drive, small motor drive, power supply application.

OUTLINE DRAWING

Unit:mm



TERMINAL CONNECTOR

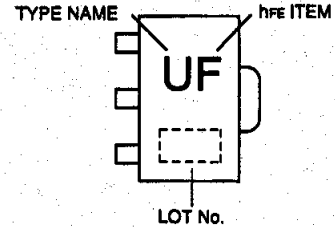
E : EMITTER
C : COLLECTOR EIAJ : SC-62
B : BASE JEDEC : -

Note)
The dimension without tolerance represent central value.

MAXIMUM RATINGS (Ta=25°C)

Symbol	Parameter	Rating	Unit
V_{CB0}	Collector to Base voltage	25	V
V_{EB0}	Emitter to Base voltage	4	V
V_{CE0}	Collector to Emitter voltage	20	V
I_{CM}	Peak collector current	1	A
I_C	Collector current	700	mA
P_C	Collector dissipation(Ta=25°C)	500	mW
T_J	Junction temperature	+150	°C
T_{stg}	Storage temperature	-55 to +150	°C

MARKING



ELECTRICAL CHARACTERISTICS (Ta=25°C)

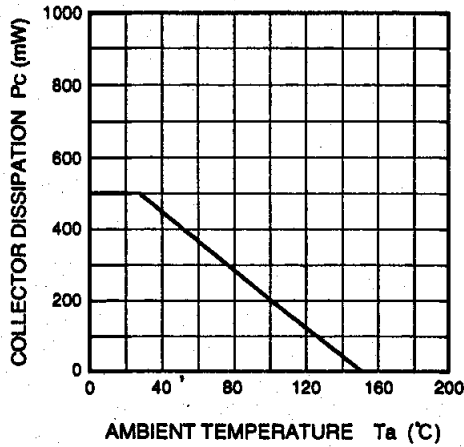
Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
$V_{(BR)CBO}$	C to B break down voltage	$I_C=10 \mu A, I_E=0$	25			V
$V_{(BR)EBO}$	E to B break down voltage	$I_E=10 \mu A, I_C=0$	4			V
$V_{(BR)CEO}$	C to E break down voltage	$I_C=100 \mu A, R_{BE}=\infty$	20			V
I_{CBO}	Collector cut off 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	$V_{CE}=4V, I_C=100mA$	150		800	—
$V_{CE(sat)}$	C to E saturation voltage	$I_C=500mA, I_B=25mA$		0.2	0.5	V
f_T	Gain band width product	$V_{CE}=6V, I_E=-10mA$		180		MHz

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

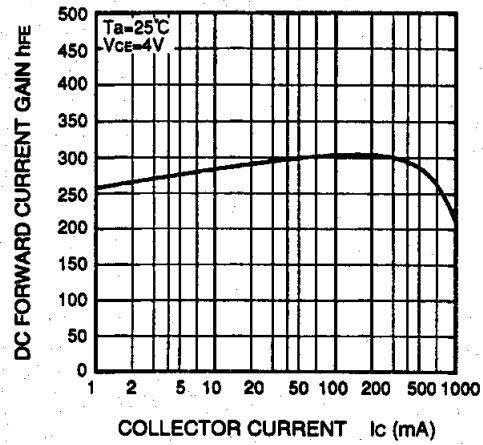
Marking	UE	UF	UG
h_{FE}	150 to 300	250 to 500	400 to 800

TYPICAL CHARACTERISTICS

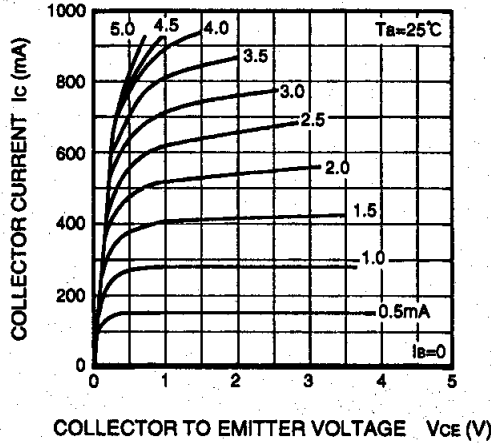
COLLECTOR DISSIPATION VS.
AMBIENT TEMPERATURE



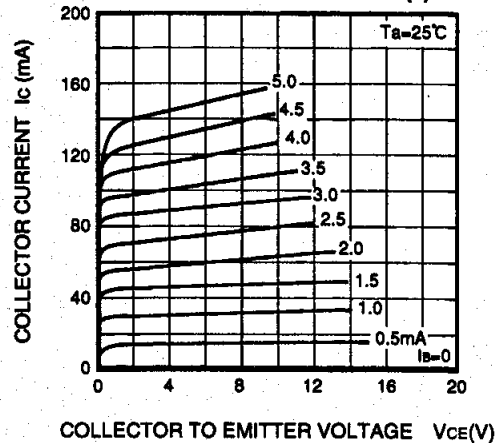
DC FORWARD CURRENT GAIN
VS. COLLECTOR CURRENT



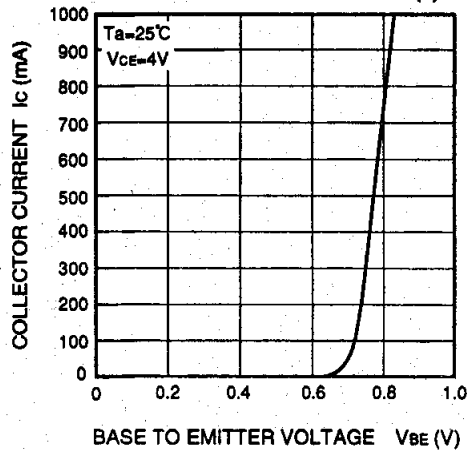
COMMON EMITTER OUTPUT (1)



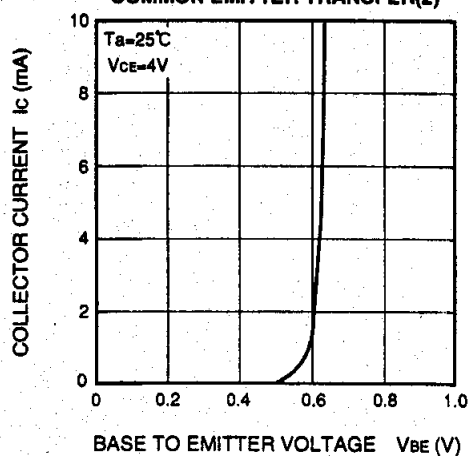
COMMON EMITTER OUTPUT (2)



COMMON EMITTER TRANSFER(1)



COMMON EMITTER TRANSFER(2)



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