

**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**

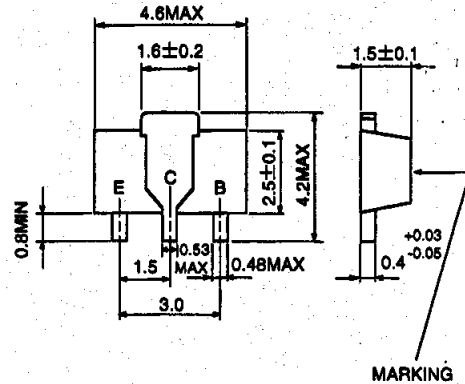
- Low collector saturation voltage  
 $V_{CE(sat)}=0.2V$  typ
- High  $f_T$   $f_T=180MHz$  typ
- Excellent linearity of DC forward current gain
- High collector current  $I_{CM}=1A$
- Small package for mounting

**APPLICATION**

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

**OUTLINE DRAWING**

Unit:mm



**TERMINAL CONNECTOR**

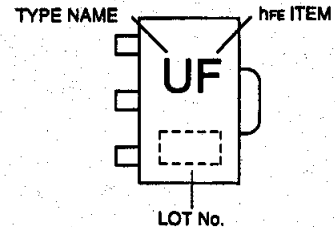
E : EMITTER  
C : COLLECTOR EIAJ : SC-62  
B : BASE JEDEC : -

Note)  
The dimension without tolerance represent central value.

**MAXIMUM RATINGS (Ta=25°C)**

Symbol	Parameter	Ratings	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)**

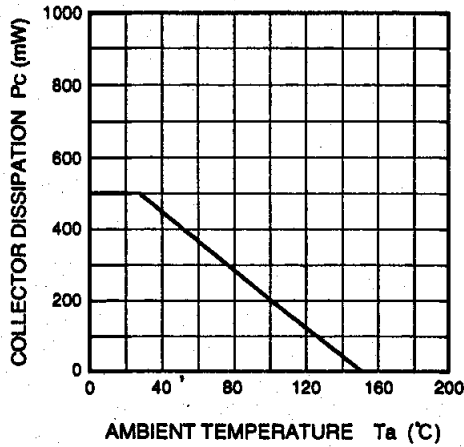
Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
$V_{(BR)CBO}$	C to B break down voltage	$I_C=10\mu A, I_E=0$	25			V
$V_{(BR)EBO}$	E to B break down voltage	$I_E=10\mu A, I_C=0$	4			V
$V_{(BR)CEO}$	C to E break down voltage	$I_C=100\mu A, R_{BE}=\infty$	20			V
$I_{CBO}$	Collector cut off current	$V_{CB}=25V, I_E=0$			1	$\mu A$
$I_{EBO}$	Emitter cut off current	$V_{BE}=2V, I_C=0$			1	$\mu A$
$h_{FE} *$	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.

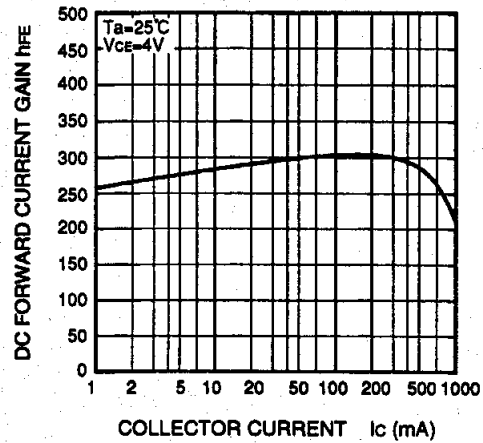
Marking	UE	UF	UG
$h_{FE}$	150 to 300	250 to 500	400 to 800

TYPICAL CHARACTERISTICS

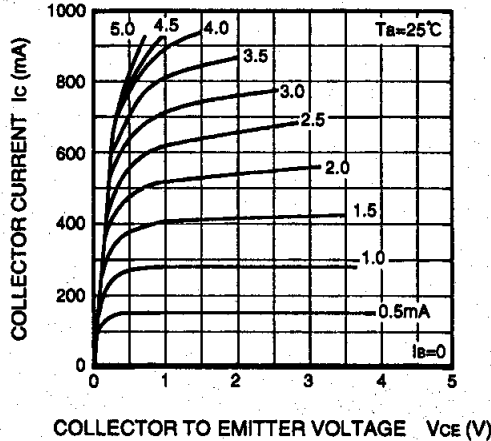
COLLECTOR DISSIPATION VS.  
AMBIENT TEMPERATURE



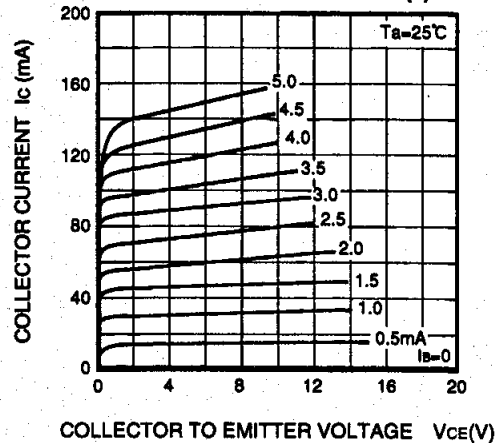
DC FORWARD CURRENT GAIN  
VS. COLLECTOR CURRENT



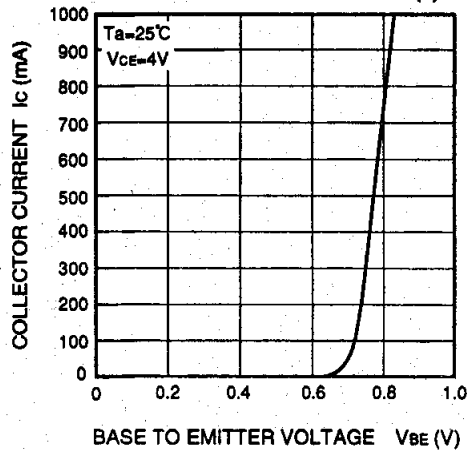
COMMON EMITTER OUTPUT (1)



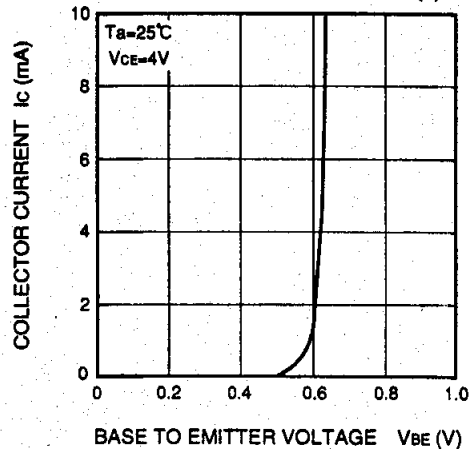
COMMON EMITTER OUTPUT (2)



COMMON EMITTER TRANSFER(1)



COMMON EMITTER TRANSFER(2)



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