〈SMALL-SIGNAL TRANSISTOR〉

2SC5212

FOR HIGH CURRENT DRIVE APPLICATION
SILICON NPN EPITAXIAL TYPE

DESCRIPTION

2SC5212 is a resin sealed silicon NPN epitaxial transistor.
It designed with high collector current, small VCE(sat).
Complementary with 2SA1946.

FEATURE

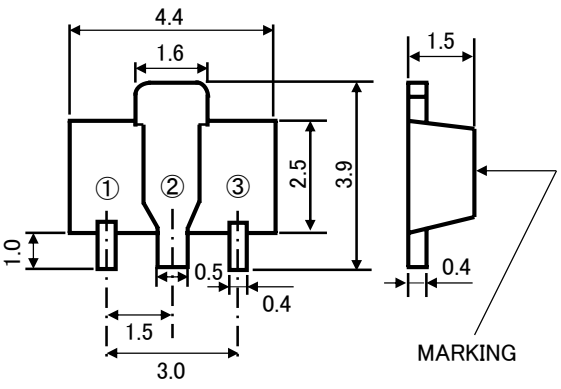
- Small package for easy mounting
- High collector current ICM=1000mA
- Low collector to emitter saturation voltage
  VCE(sat)=0.2V typ
- Excellent linearity of DC forward current gain.
- High gain band with product fT=180MHz typ

APPLICATION

Small type motor drive, relay drive, power supply

OUTLINE DRAWING

Unit:mm



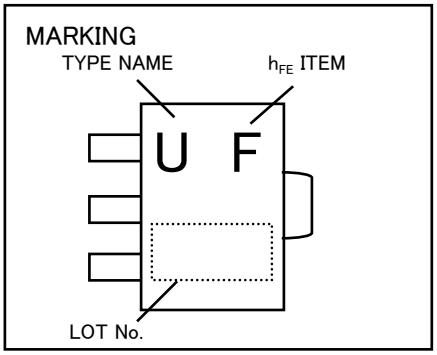
TERMINAL CONNECTER
①:EMITTER
②:COLLECTOR
③:BASE

JEITA:SC-62
JEDEC:SOT-89

MAXIMUM RATINGS(Ta=25℃)

Parameter	Symbol	Ratings	Unit
Collector to Base voltage	V_{CBO}	25	V
Emitter to Base voltage	V_{EBO}	4	V
Collector to Emitter voltage	V_{CEO}	20	V
Collector current	I_C	700	mA
Peak collector current	I_{CM}	1000	mA
Collector dissipation	P_c	500	mW
Junction temperature	T_j	+150	℃
Storage temperature	T_{stg}	−55～+150	℃

MARKING



ELECTRICAL CHARACTERISTICS(Ta=25℃)

Parameter	Symbol	Test conditions	Limits			Unit
			Min	Typ	Max	
C to B breakdown voltage	$V(BR)_{CBO}$	I_C=10μA , I_E=0mA	25	−	−	V
E to B breakdown voltage	$V(BR)_{EBO}$	I_E=10μA , I_C=0mA	4	−	−	V
C to E breakdown voltage	$V(BR)_{CEO}$	I_C=100μA , R_{BE}=∞	20	−	−	V
Collector cut off current	ICBO	V_{CB}=25V, I_E=0mA	−	−	1	μA
Emitter cut off current	IEBO	V_{EB}=2V, I_C=0mA	−	—	1	μA
DC forward current gain ＊	hFE	V_{CE}=4V, I_C=100mA	150	—	800	—
C to E Saturation Voltage	VCE(sat)	I_C=500mA , I_B=25mA	−	0.2	0.5	V
Gain bandwidth product	fT	V_{CE}=6V, I_E=−10mA	−	180	−	MHz

※: It shows hFE classification at right table.

Item	E	F	G
hFE	150～300	250～500	400～800

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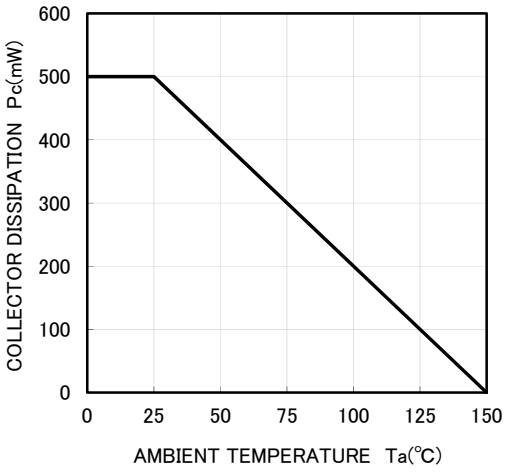
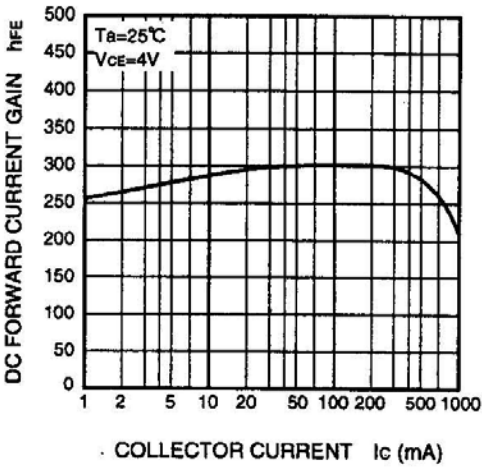
TYPACAL CHARACTERISTICS

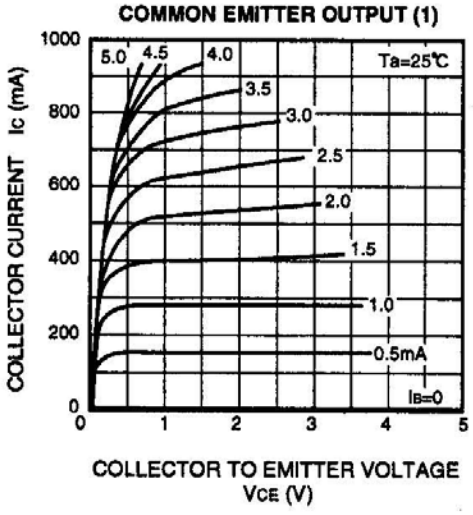
COLLECTOR DISSIPATION
VS AMBIENT TEMPERATURE



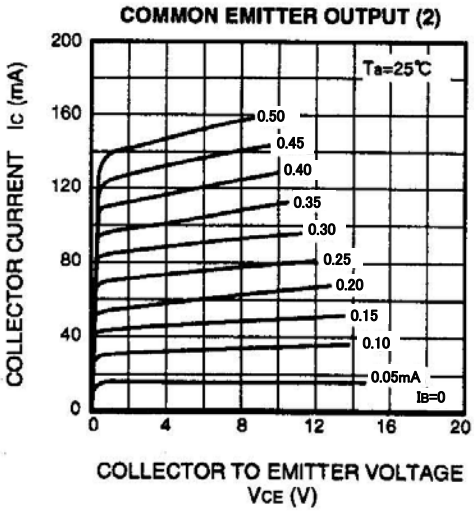
DC FORWARD CURRENT GAIN VS.
COLLECTOR CURRENT



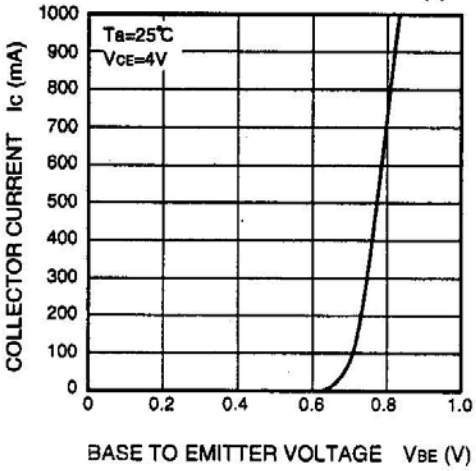
COMMON EMITTER OUTPUT (1)



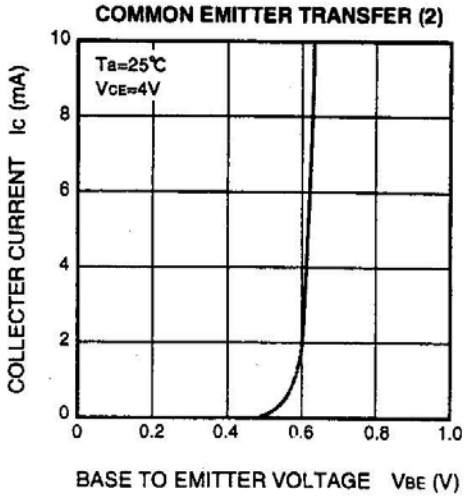
COMMON EMITTER OUTPUT (2)



COMMON EMITTER TRANSFER (1)



COMMON EMITTER TRANSFER (2)



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