

(SMALL-SIGNAL TRANSISTOR)

2SC5210

**FOR SMALL TYPE COLOUR TV CHROMA OUTPUT APPLICATION
SILICON NPN TRIPLE DIFFUSED TYPE**

DESCRIPTION

2SC5210 is a silicon NPN triple diffused transistor designed for colour TV chroma output circuit, high voltage switching circuit application.

FEATURE

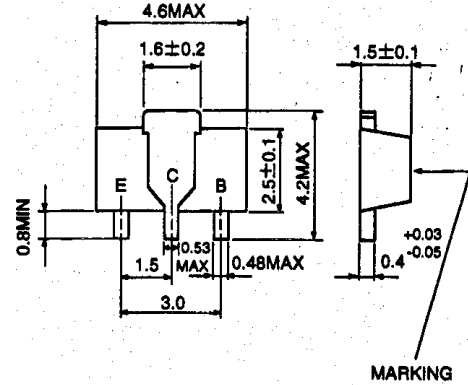
- High voltage $V_{CE0}=250V$
- Low C_{ob} $C_{ob}=3.5pF$ typ
- High f_r $f_r=80MHz$ typ
- Small package for mounting

APPLICATION

Small type colour TV chroma output circuit, high voltage switching circuit.

OUTLINE DRAWING

Unit:mm

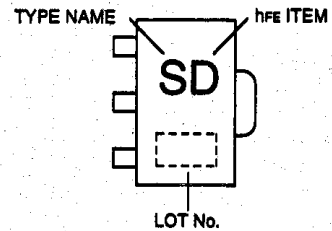


TERMINAL CONNECTOR

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

Note) The dimension without tolerance represent central value.

MARKING



MAXIMUM RATINGS (Ta=25°C)

Symbol	Parameter	Ratings	Unit
V _{CB0}	Collector to Base voltage	300	V
V _{EB0}	Emitter to Base voltage	5	V
V _{CE0}	Collector to Emitter voltage	250	V
I _c	Collector current	100	mA
P _c	Collector dissipation (Ta=25°C)	500	mW
T _j	Junction temperature	+150	°C
T _{stg}	Storage temperature	-55 to +150	°C

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 μA, I _E =0	300			V
V _{(BR)EBO}	E to B break down voltage	I _E =10 μA, I _C =0	5			V
V _{(BR)CEO}	C to E break down voltage	I _c =5mA, R _{BE} =∞, pulse measurement	250			V
I _{cBO}	Collector cut off current	V _{CB} =150V, I _E =0			1	μA
h _{FE} *	DC forward current gain	V _{CE} =10V, I _c =25mA	55		230	—
V _{CE(sat)}	C to E saturation voltage	I _c =25mA, I _B =2.5mA			1.5	V
f _r	Gain band width product	V _{CE} =10V, I _E =-10mA, f=10MHz	60	80		MHz
C _{ob}	Collector output capacitance	V _{CB} =10V, I _E =0, f=1MHz, triode measurement		3.5		pF

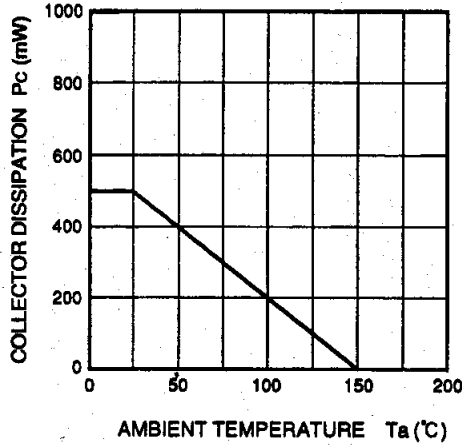
* : It shows hFE classification in right table.

Marking	SC	SD	SE
hFE	55 to 110	90 to 180	150 to 230

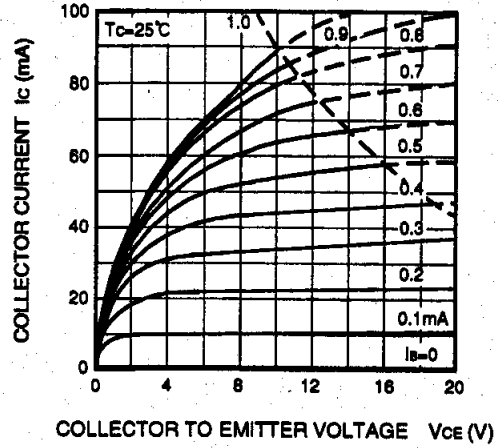
FOR SMALL TYPE COLOUR TV CHROMA OUTPUT APPLICATION
SILICON NPN TRIPLE DIFFUSED TYPE

TYPICAL CHARACTERISTICS

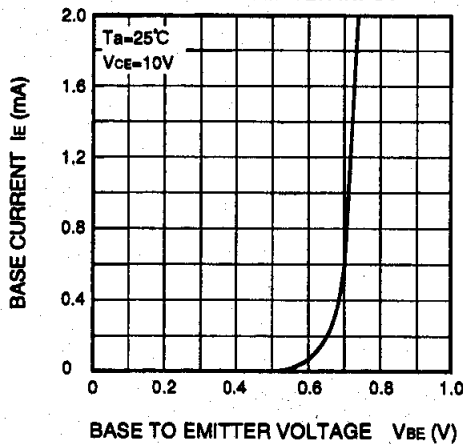
COLLECTOR DISSIPATION VS.
AMBIENT TEMPERATURE



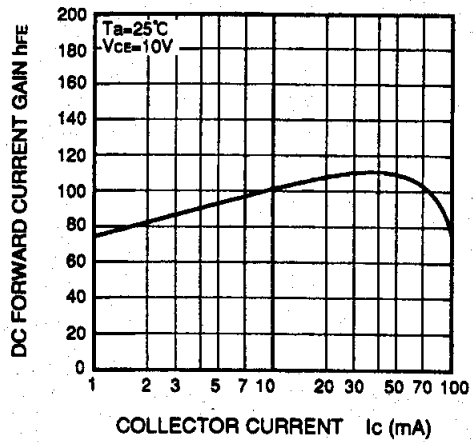
COMMON EMITTER OUTPUT



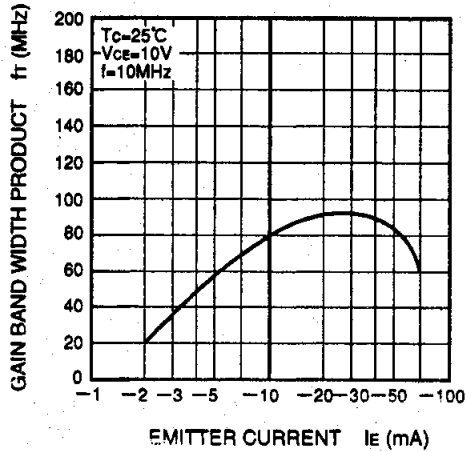
COMMON EMITTER INPUT



DC FORWARD CURRENT GAIN
VS. COLLECTOR CURRENT



GAIN BAND WIDTH PRODUCT
VS. EMITTER CURRENT



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