

**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

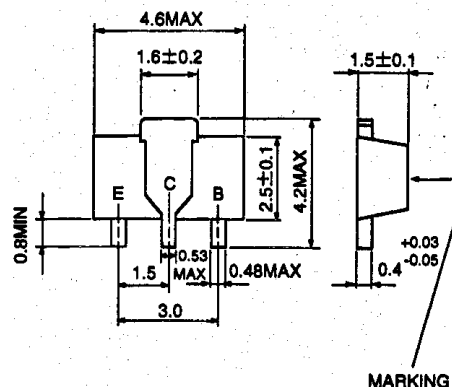
- High voltage $V_{CE0}=250V$
- Low C_{ob} $C_{ob}=3.5pF$ typ
- High f_t $f_t=80MHz$ typ
- Small package for mounting

APPLICATION

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

OUTLINE DRAWING

Unit:mm

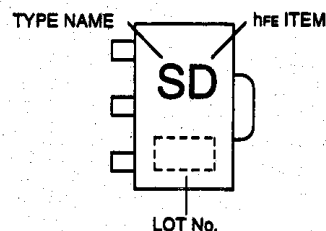
**TERMINAL CONNECTOR**

E : EMITTER
C : COLLECTOR
B : BASE

EIAJ : SC-62
JEDEC : -

Note)

The dimension without tolerance represent central value.

MARKING**MAXIMUM RATINGS** ($T_a=25^{\circ}C$)

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($T_a=25^{\circ}C$)	500	mW
T_J	Junction temperature	+150	$^{\circ}C$
T_{stg}	Storage temperature	-55 to +150	$^{\circ}C$

ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}C$)

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
$V_{(BR)CBO}$	C to B break down voltage	$I_C=10\mu A, I_E=0$	300			V
$V_{(BR)EBO}$	E to B break down voltage	$I_E=10\mu A, I_C=0$	5			V
$V_{(BR)CEO}$	C to E break down voltage	$I_C=5mA, R_{BE}=\infty$, 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_t	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

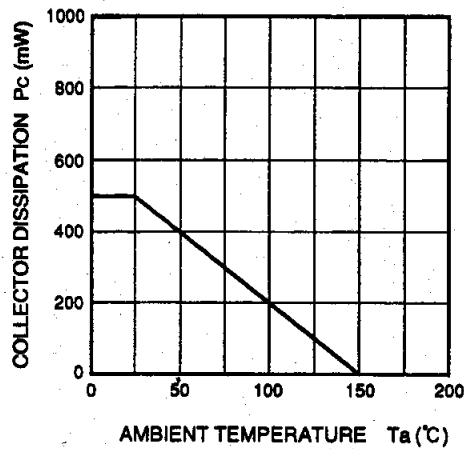
* : It shows h_{FE} classification in right table.

Marking	SC	SD	SE
h_{FE}	55 to 110	90 to 180	150 to 230

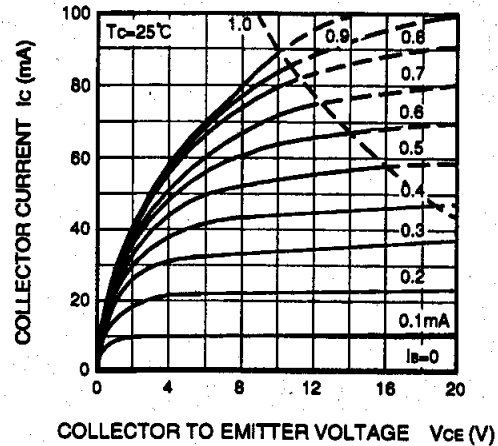
FOR SMALL TYPE COLOUR TV CHROMA OUTPUT APPLICATION
SILICON NPN TRIPLE DIFFUSED TYPE

TYPICAL CHARACTERISTICS

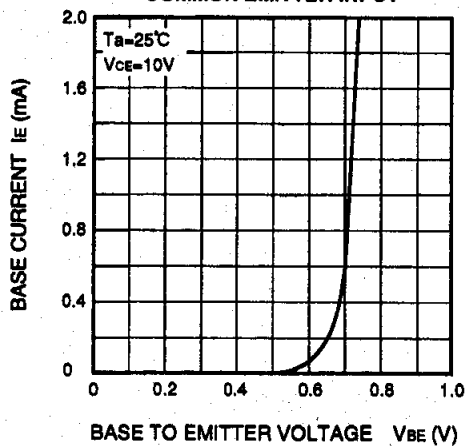
**COLLECTOR DISSIPATION VS.
AMBIENT TEMPERATURE**



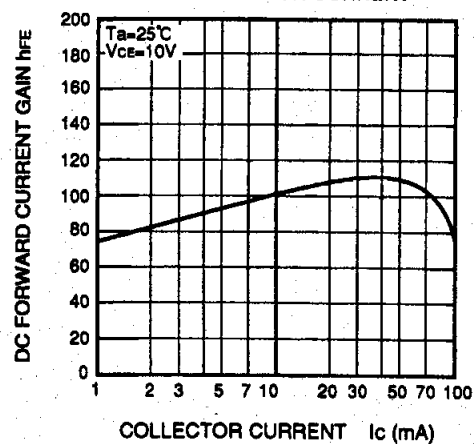
COMMON EMITTER OUTPUT



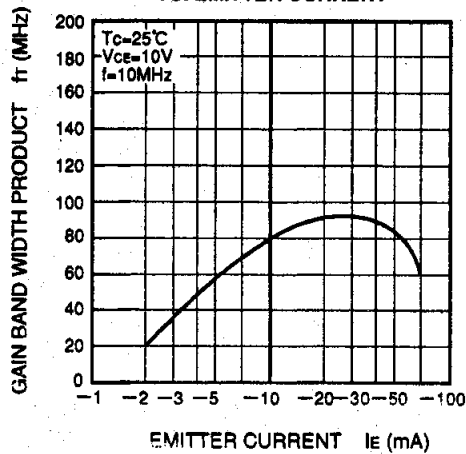
COMMON EMITTER INPUT



**DC FORWARD CURRENT GAIN
VS. COLLECTOR CURRENT**



**GAIN BAND WIDTH PRODUCT
VS. EMITTER CURRENT**





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