

(SMALL-SIGNAL TRANSISTOR)

2SC3249

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

DESCRIPTION

2SC3249 is a silicon NPN triple diffused transistor designed for colour TV chroma output circuit, high voltage, switching circuit application.

FEATURE

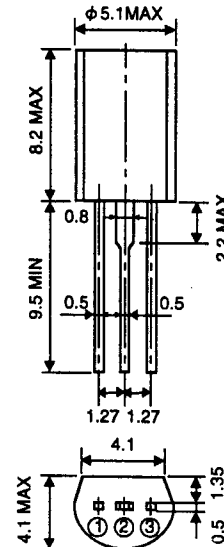
- High voltage $V_{CE0}=250V$
- High gain width product $f_r=80MHz$ typ
- Low C_{ob} $C_{ob}=3.5pF$ typ

APPLICATION

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

OUTLINE DRAWING

Unit:mm



TERMINAL CONNECTOR

- ① : EMITTER EIAJ : —
- ② : COLLECTOR JEDEC : —
- ③ : BASE

Note) The dimension without tolerance represent central value.

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

Symbol	Parameter	Rating	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($T_a=25^{\circ}C$)	900	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_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 h_{FE} classification in right table.

Item	C	D	E
h_{FE}	55 to 110	90 to 180	150 to 230

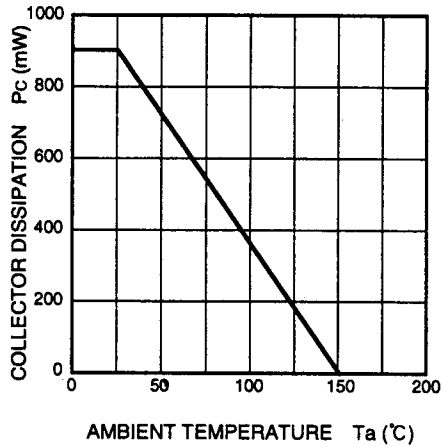
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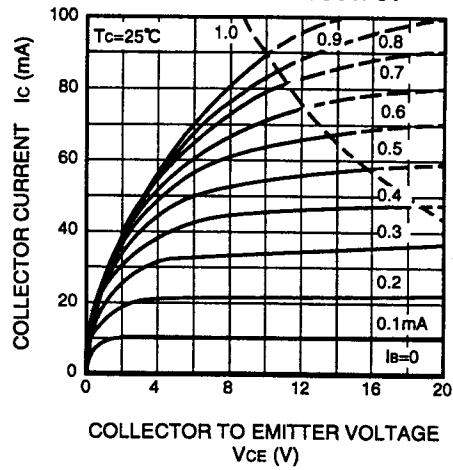
FOR SMALL TYPE COLOUR TV CHROMA OUTPUT APPLICATION
SILICON NPN TRIPLE DIFFUSED TYPE

TYPICAL CHARACTERISTICS

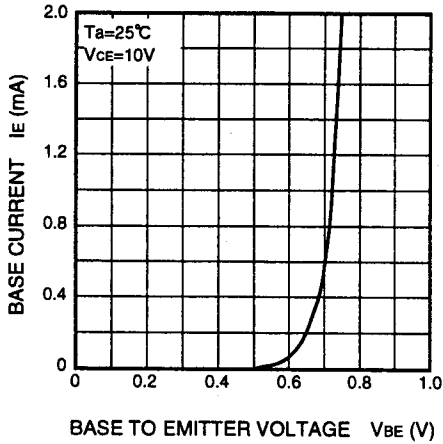
COLLECTOR DISSIPATION VS. AMBIENT TEMPERATURE



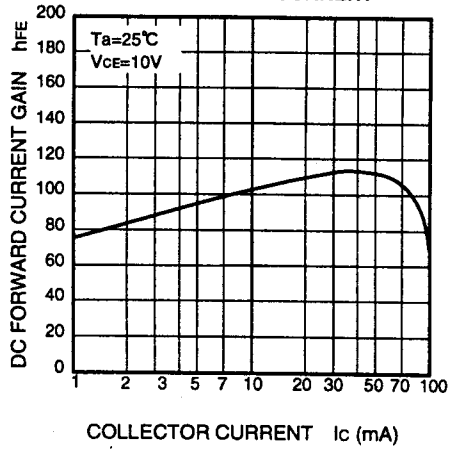
COMMON EMITTER OUTPUT



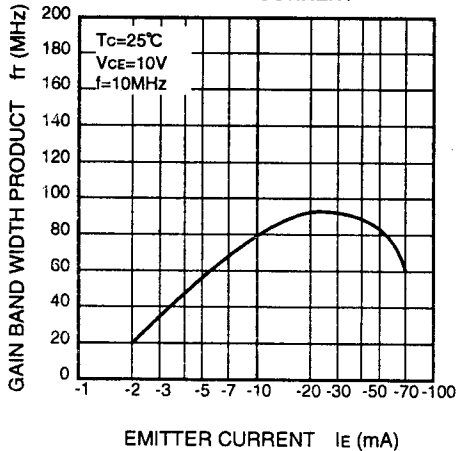
COMMON EMITTER TRANSFER



DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



GAIN BAND WIDTH PRODUCT VS. EMITTER CURRENT



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