

# SILICON TRANSISTOR 2SC2371

## NPN SILICON TRIPLE DIFFUSED TRANSISTOR VIDEO OUTPUT TRANSISTOR

### DESCRIPTION

The 2SC2371 is designed for use in Color TV chroma output circuits.

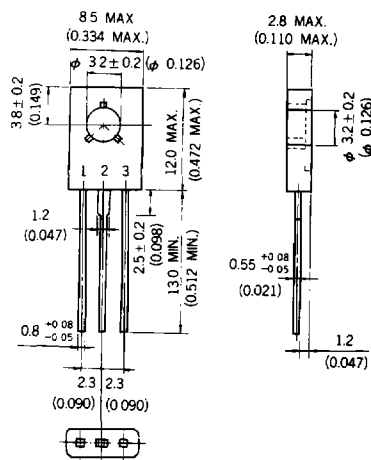
### FEATURES

- High Voltage  
 $V_{CB0} \geq 300 \text{ V}$ ,  $V_{CE0} \geq 300 \text{ V}$
- Low  $C_{re}$ , High  $f_T$   
 $C_{re} \leq 3.0 \text{ pF}$  ( $V_{CB} = 30 \text{ V}$ )  
 $f_T \geq 50 \text{ MHz}$  ( $V_{CE} = 30 \text{ V}$ ,  $I_E = -10 \text{ mA}$ )

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

Collector to Base Voltage	$V_{CB0}$	300	V
Collector to Emitter Voltage	$V_{CE0}$	300	V
Emitter to Base Voltage	$V_{EBO}$	7.0	V
Collector Current	$I_C$	100	mA
Total Power Dissipation	$P_T (T_C = 25^\circ \text{C})$	10	W
Total Power Dissipation	$P_T (T_a = 25^\circ \text{C})$	1.25	W
Junction Temperature	$T_j$	150	$^\circ \text{C}$
Storage Temperature	$T_{stg}$	-55 to +150	$^\circ \text{C}$

### PACKAGE DIMENSIONS in millimeters (inches)



1. Emitter
2. Collector connected to mounting plane
3. Base

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

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Collector Cutoff Current	$I_{CB0}$			100	nA	$V_{CB} = 200 \text{ V}$ , $I_E = 0$
Emitter Cutoff Current	$I_{EBO}$			100	nA	$V_{EB} = 5.0 \text{ V}$ , $I_C = 0$
DC Current Gain	$h_{FE}$	40	80	250		$V_{CE} = 10 \text{ V}$ , $I_C = 10 \text{ mA}$ *
Collector Saturation Voltage	$V_{CE(sat)}$			1.5	V	$I_C = 30 \text{ mA}$ , $I_B = 3.0 \text{ mA}$ *
Gain Bandwidth Product	$f_T$	50	80		MHz	$V_{CE} = 30 \text{ V}$ , $I_E = -10 \text{ mA}$
Feedback Capacitance	$C_{re}$			3.0	pF	$V_{CB} = 20 \text{ V}$ , $I_E = 0$ , $f = 1.0 \text{ MHz}$

\*Pulse test  $PW \leq 350 \mu\text{s}$ , duty cycle  $\leq 2.0 \%$

$h_{FE}$  Classification/N : 40-80 M : 60-120 L : 100-200 K : 160-250

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

