

**SANYO**

No.2431

2SD1884

NPN Triple Diffused Planar Type  
Silicon Transistor

COLOR TV HORIZONTAL DEFLECTION OUTPUT APPLICATIONS

**Applications**

- . Color TV horizontal deflection output
- . Color display horizontal deflection output

**Features**

- . High speed ( $t_f=100\text{ns}$  )
- . high breakdown voltage ( $V_{CBO}=1500\text{V}$ )
- . High reliability (adoption of HVP process)

**Absolute Maximum Ratings at  $T_a=25^\circ\text{C}$**

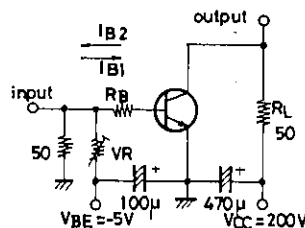
			unit
Collector-to-Base Voltage	$V_{CBO}$	1500	V
Collector-to-Emitter Voltage	$V_{CEO}$	800	V
Emitter-to-Base Voltage	$V_{EBO}$	6	V
Collector Current	$I_C$	5	A
Peak Collector Current	$i_{cp}$	20	A
Collector Dissipation	$P_C$	60	W
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

**Electrical Characteristics at  $T_a=25^\circ\text{C}$**

			min	typ	max	unit
Collector Cutoff Current	$I_{CES}$	$V_{CE}=1500\text{V}$			1.0	mA
	$I_{CBO}$	$V_{CB}=800\text{V}$			10	$\mu\text{A}$
Collector Sustain Voltage	$V_{CEO}(\text{sus})$	$I_C=100\text{mA}, I_B=0$	800			V
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=4\text{V}$			1.0	mA
C-E Saturation Voltage	$V_{CE}(\text{sat})$	$I_C=4\text{A}, I_B=0.8\text{A}$			5	V
B-E Saturation Voltage	$V_{BE}(\text{sat})$	$I_C=4\text{A}, I_B=0.8\text{A}$			1.5	V
DC Current Gain	$h_{FE1}$	$V_{CE}=5\text{V}, I_C=1\text{A}$	8			
	$h_{FE2}$	$V_{CE}=5\text{V}, I_C=4\text{A}$	5		10	
Fall Time	$t_f$	$I_C=4\text{A}, I_{B1}=0.8\text{A},$		0.1	0.3	$\mu\text{s}$
		$I_{B2}=-1.6\text{A}$				

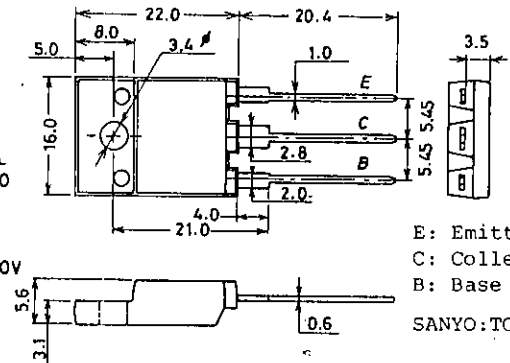
**Switching Time Test Circuit**

$PW=20\mu\text{s}, \text{duty} \leq 1\%$

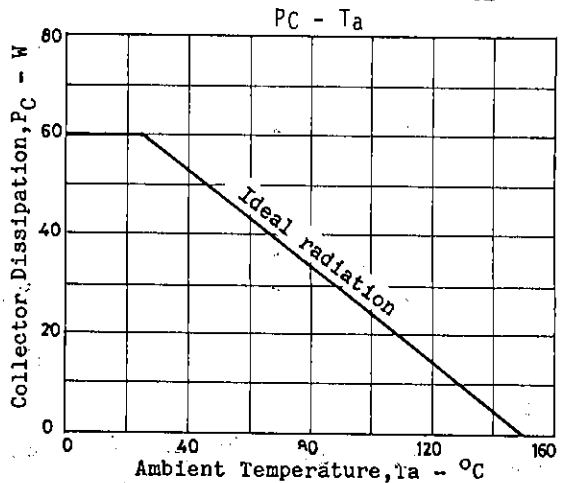
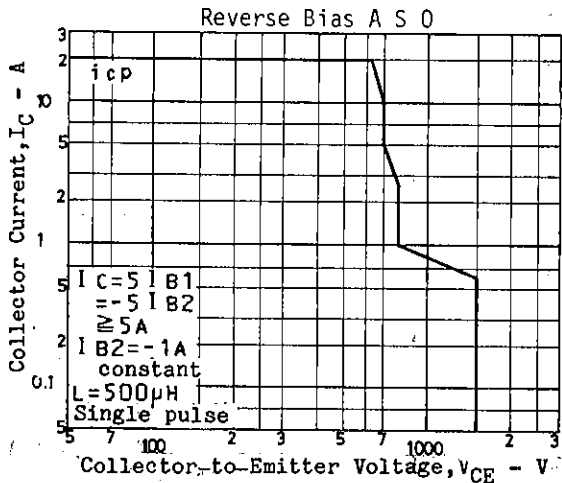
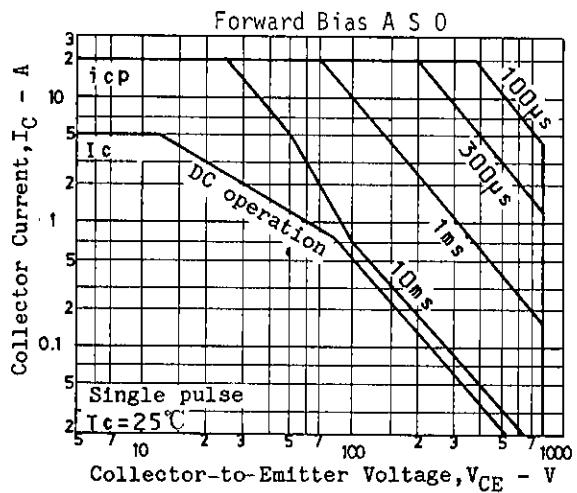
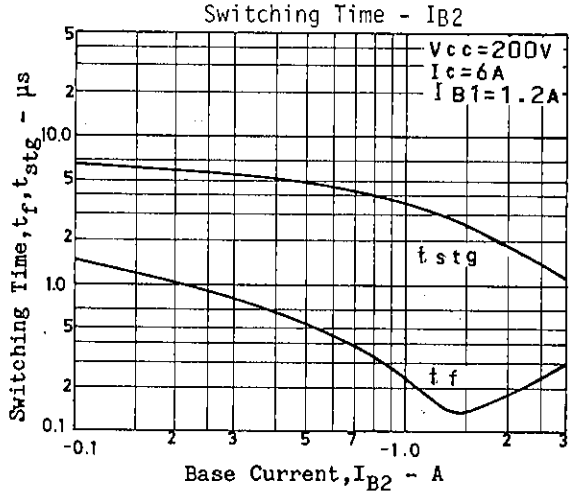
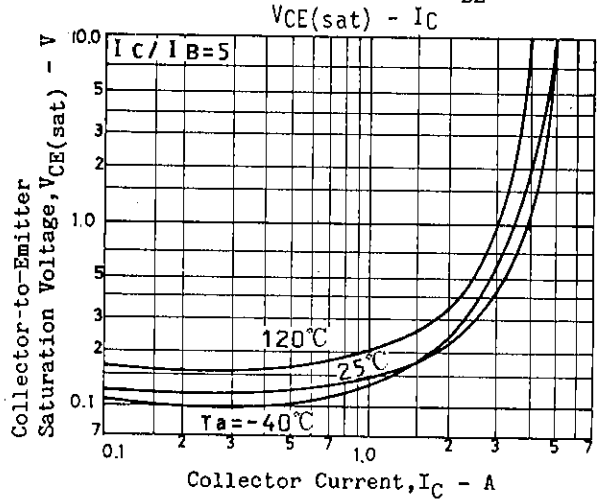
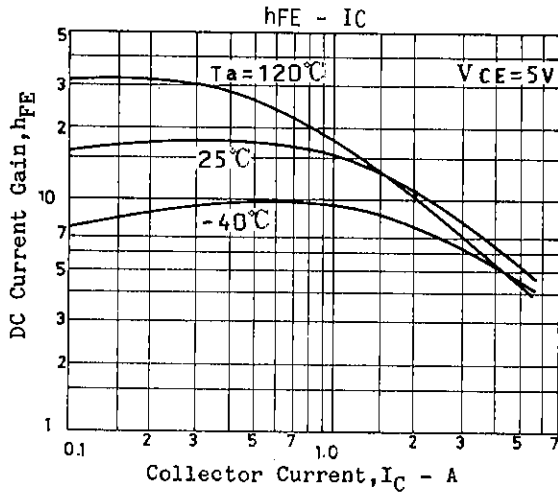
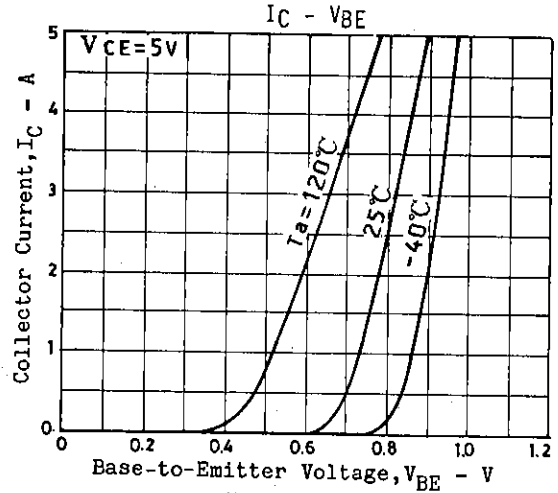
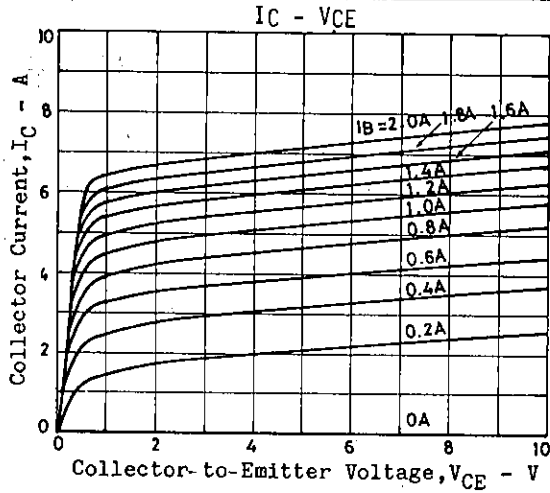


Unit (resistance: $\Omega$ , capacitance:F)

**Package Dimensions 2039 (unit:mm)**



E: Emitter  
C: Collector  
B: Base  
SANYO: TO3PML



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