

**SANYO**

No.2424

2SD1877

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 ( $t_f=100ns$ )
- . high breakdown voltage ( $V_{CBO}=1500V$ )
- . High reliability (adoption of HVP process)
- . On-chip damper diode

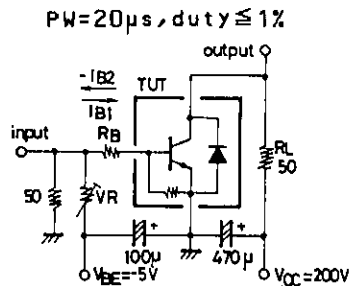
**Absolute Maximum Ratings at  $T_a=25^\circ C$**

			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	$I_C$	4	A
Peak Collector Current	$i_{cp}$	12	A
Collector Dissipation	$P_C$	50	W
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature	$T_{stg}$	-55 to +150	$^\circ C$

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

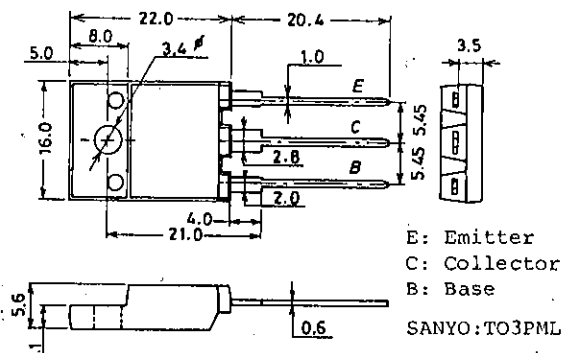
			min	typ	max	unit
Collector Cutoff Current	$I_{CES}$	$V_{CE}=1500V$			1.0	mA
	$I_{CBO}$	$V_{CB}=800V$			10	$\mu A$
Collector Sustain Voltage	$V_{CEO(sus)}$	$I_C=100mA, I_B=0$	800			V
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=4V$	40		130	mA
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=2.5A, I_B=0.8A$			5	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C=2.5A, I_B=0.8A$			1.5	V
DC Current Gain	$h_{FE1}$	$V_{CE}=5V, I_C=0.5A$	8			
	$h_{FE2}$	$V_{CE}=5V, I_C=2.5A$	3.5		7	
Diode Forward Voltage	$V_F$	$I_{EC}=4A$			2.0	V
Fall Time	$t_f$	$I_C=3A, I_{B1}=0.8A, I_{B2}=-1.6A$		0.1	0.3	$\mu s$

**Switching Time Test Circuit**



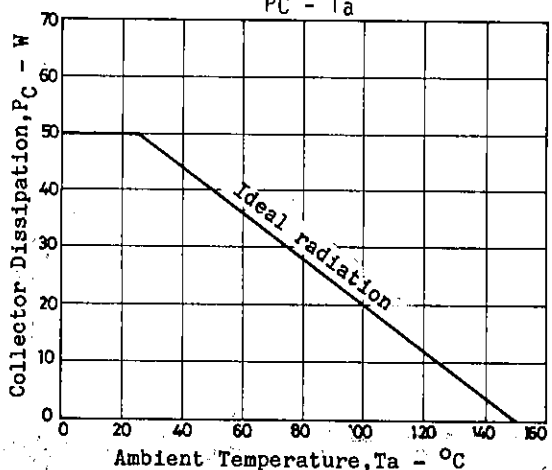
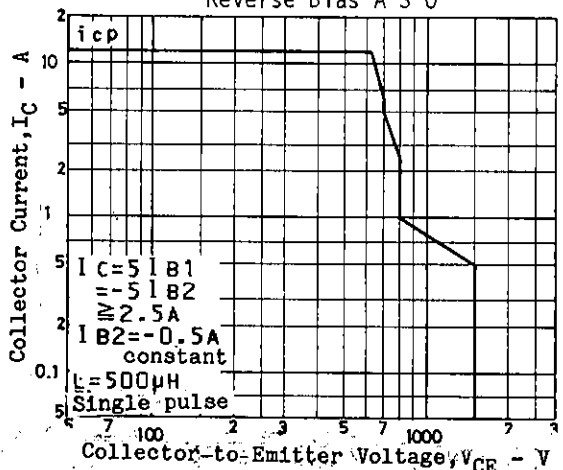
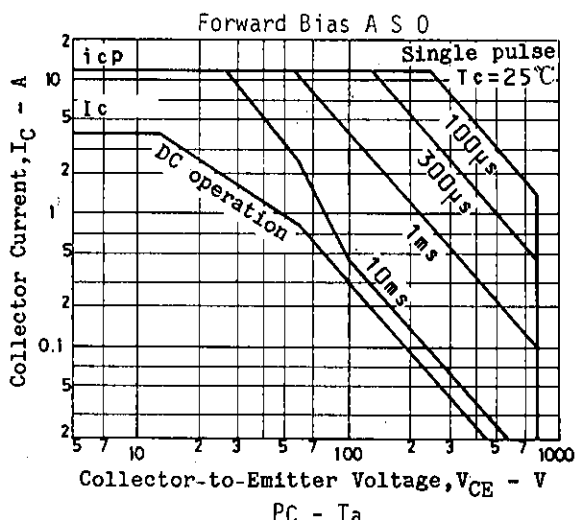
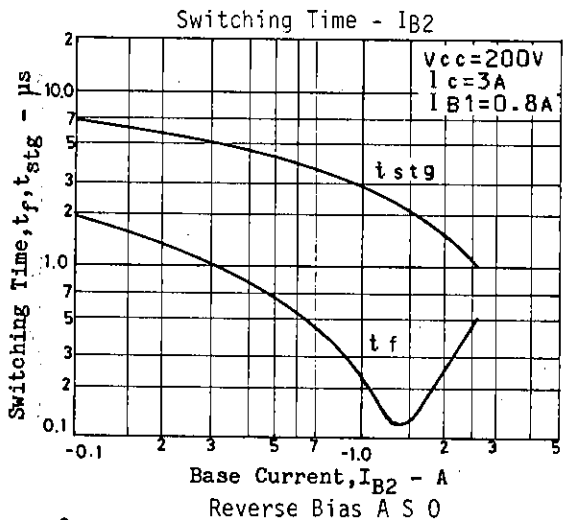
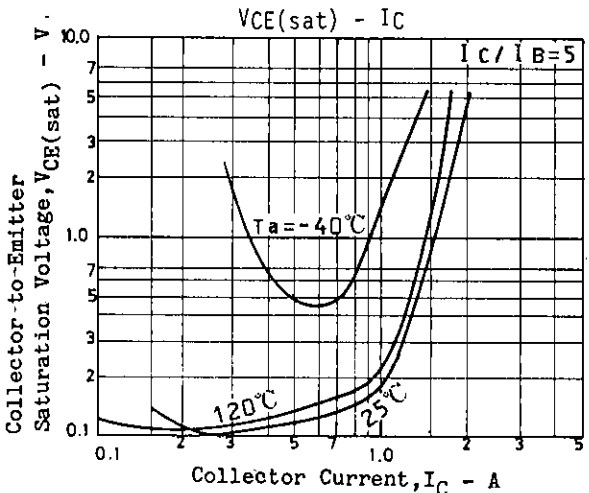
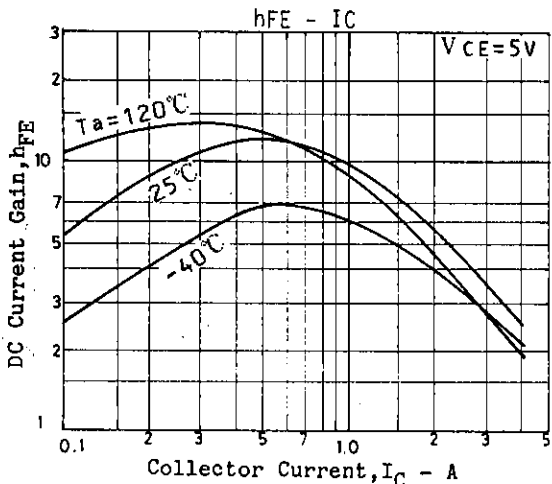
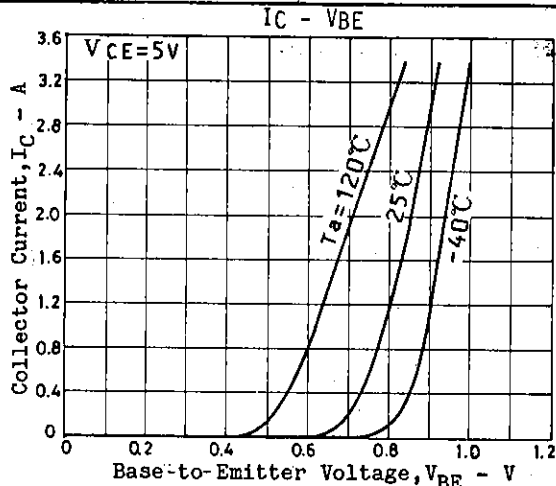
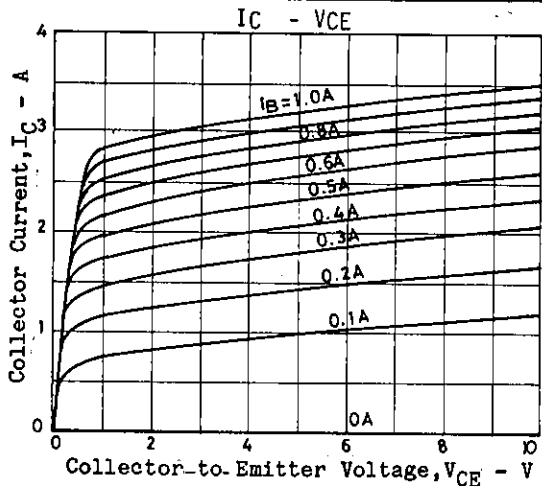
Unit (resistance: $\Omega$ , capacitance:F)

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



E: Emitter  
C: Collector  
B: Base

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