

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

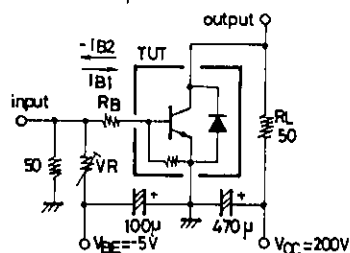
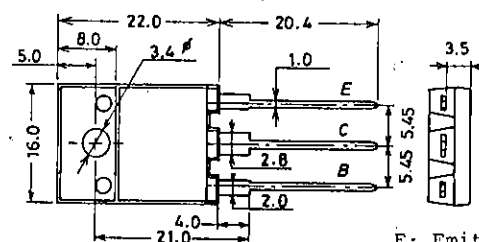
- High speed ($t_f=100\text{ns}$)
- high breakdown voltage ($V_{CB0}=1500\text{V}$)
- High reliability (adoption of HVP process)
- On-chip damper diode

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

			unit
Collector-to-Base Voltage	V_{CB0}	1500	V
Collector-to-Emitter Voltage	V_{CE0}	800	V
Emitter-to-Base Voltage	V_{EB0}	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	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

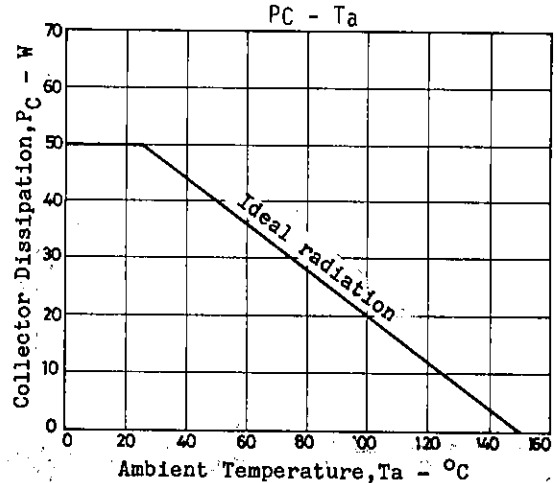
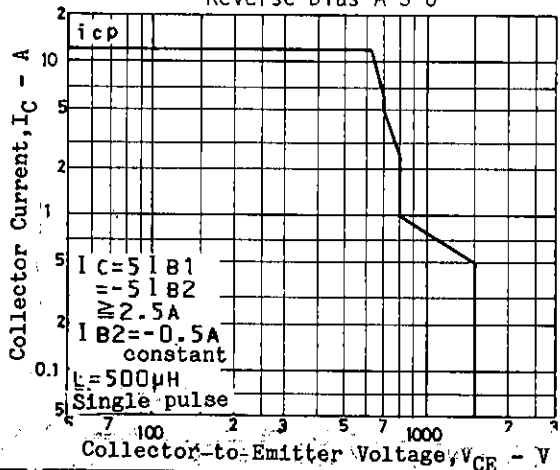
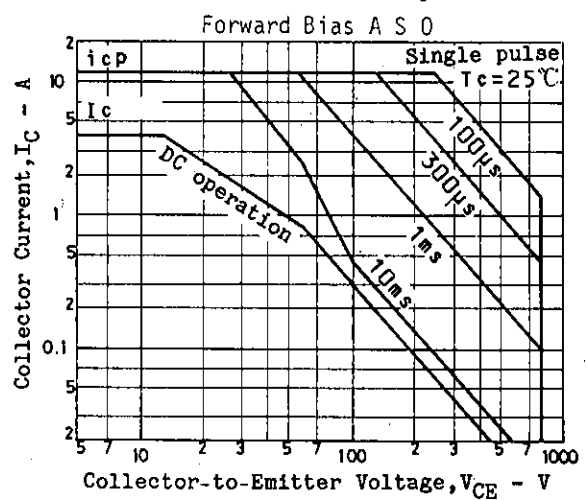
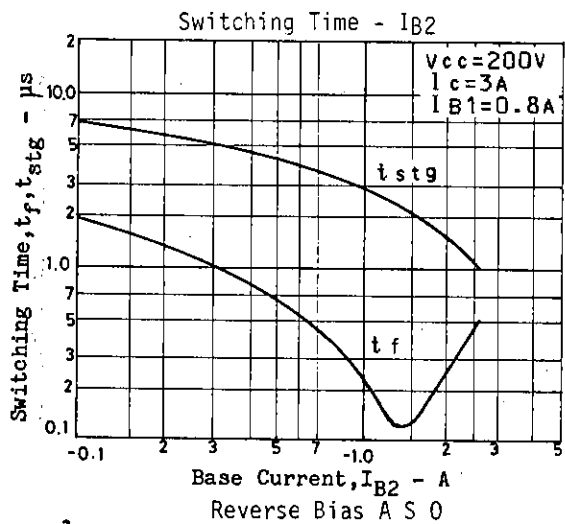
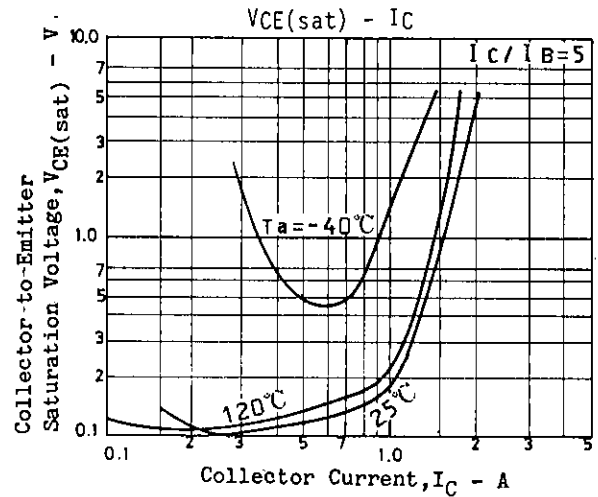
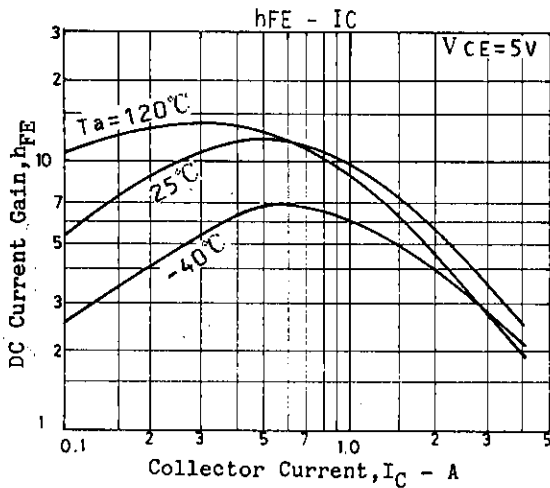
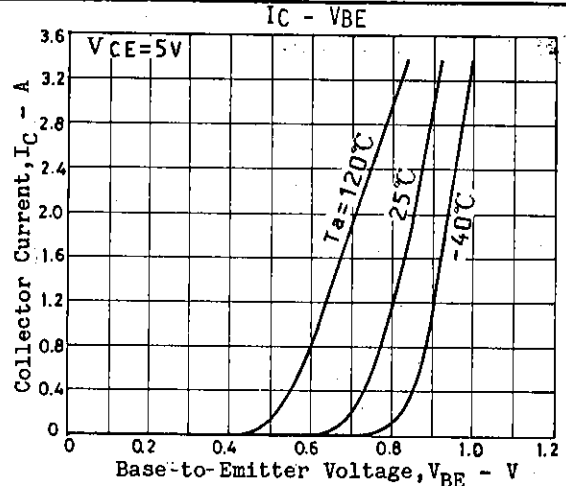
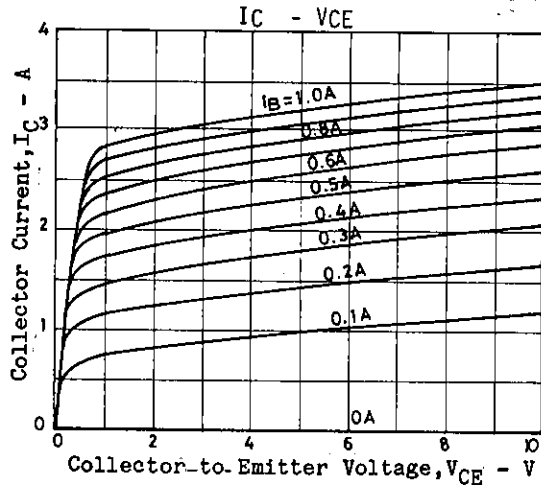
Electrical Characteristics at $T_a=25^\circ\text{C}$

			min	typ	max	unit
Collector Cutoff Current	I_{CES}	$V_{CE}=1500\text{V}$			1.0	mA
	I_{CB0}	$V_{CB}=800\text{V}$			10	μA
Collector Sustain Voltage	$V_{CE0(sus)}$	$I_C=100\text{mA}, I_B=0$	800			V
Emitter Cutoff Current	I_{EBO}	$V_{EB}=4\text{V}$	40		130	mA
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=2.5\text{A}, I_B=0.8\text{A}$			5	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C=2.5\text{A}, I_B=0.8\text{A}$			1.5	V
DC Current Gain	h_{FE1}	$V_{CE}=5\text{V}, I_C=0.5\text{A}$	8			
	h_{FE2}	$V_{CE}=5\text{V}, I_C=2.5\text{A}$	3.5		7	
Diode Forward Voltage	V_F	$I_{EC}=4\text{A}$			2.0	V
Fall Time	t_f	$I_C=3\text{A}, I_{B1}=0.8\text{A}, I_{B2}=-1.6\text{A}$	0.1	0.3		μs

**Switching Time
Test Circuit**PW=20 μs , duty $\leq 1\%$ Unit (resistance: Ω , capacitance:F)**Package Dimensions 2039
(unit:mm)**E: Emitter
C: Collector
B: Base

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