Ordering number: EN 2427A

SANYO

No.2427A

2SD1880

NPN Triple Diffused Planar 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 Ta = 25°C

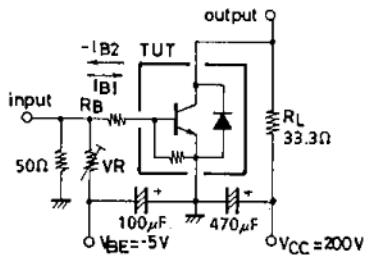
			unit
Collector-to-Base Voltage	V_{CBO}	1500	V
Collector-to-Emitter Voltage	V_{CEO}	800	V
Emitter-to-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	8	A
Collector Current (Pulse)	I_{CP}	30	A
Collector Dissipation	P_C	70	W
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	−55 to +150	°C

Electrical Characteristics at Ta = 25°C

			min	typ	max	unit
Collector Cutoff Current	I_{CES}	V_{CE} = 1500V			1.0	mA
	I_{CBO}	V_{CB} = 800V			10	μA
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 = 6A, I_B = 1.2A			5	V
B-E Saturation Voltage	$V_{BE(sat)}$	I_C = 6A, I_B = 1.2A			1.5	V
DC Current Gain	$h_{FE}1$	V_{CE} = 5V, I_C = 1A	8			
	$h_{FE}2$	V_{CE} = 5V, I_C = 6A	5		10	
Diode Forward Voltage	V_F	I_{EC} = 8A			2.0	V
Fall Time	t_f	I_C = 6A, I_{B2} = 1.2A, I_{B2} = −2.4A		0.1	0.3	μs

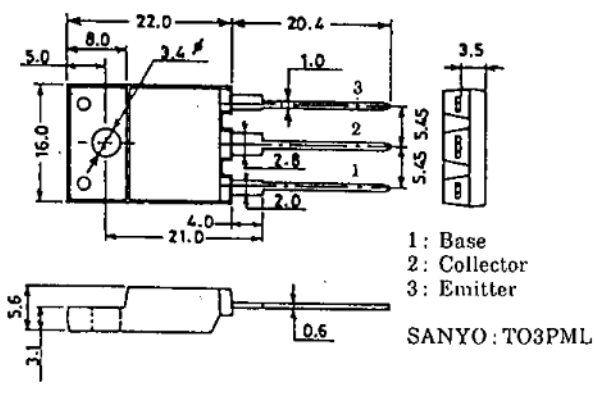
Switching Time Test Circuit

PW = 20μs, duty ≦ 1%



Package Dimensions 2039B

(unit: mm)



1: Base
2: Collector
3: Emitter

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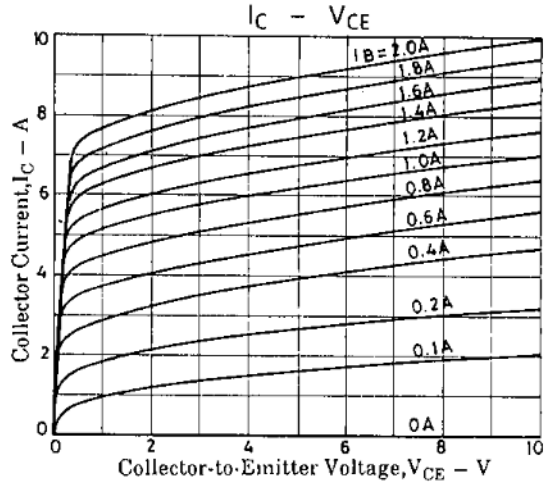
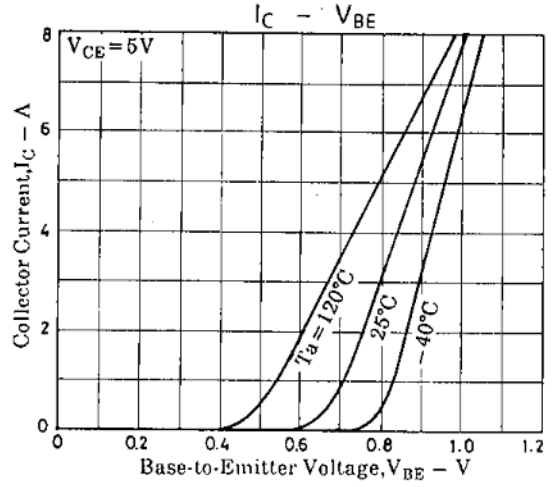
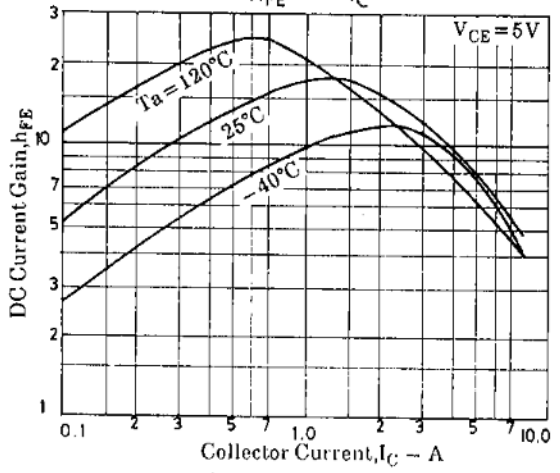
I_C – V_{CE}



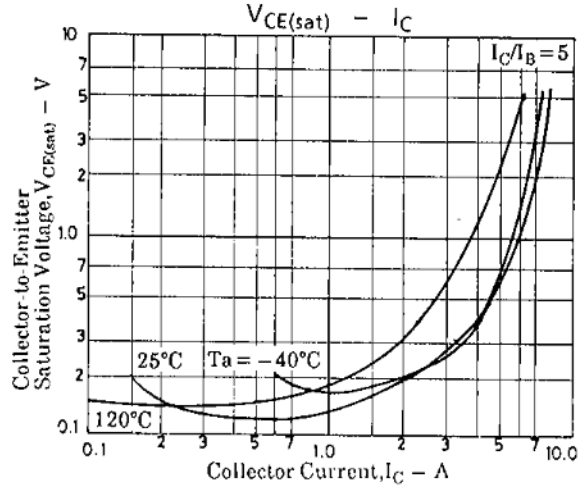
I_C – V_{BE}



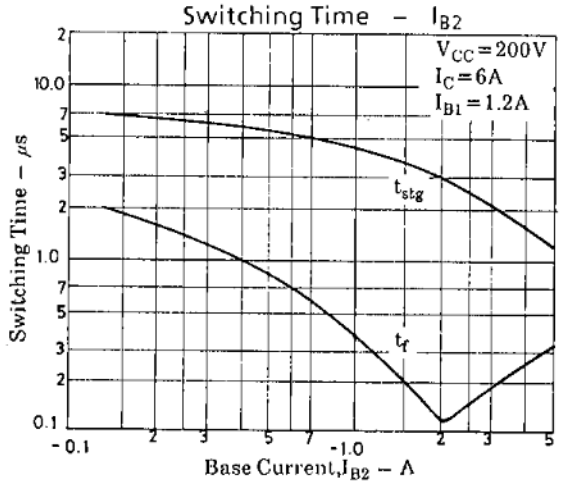
h_{FE} – I_C



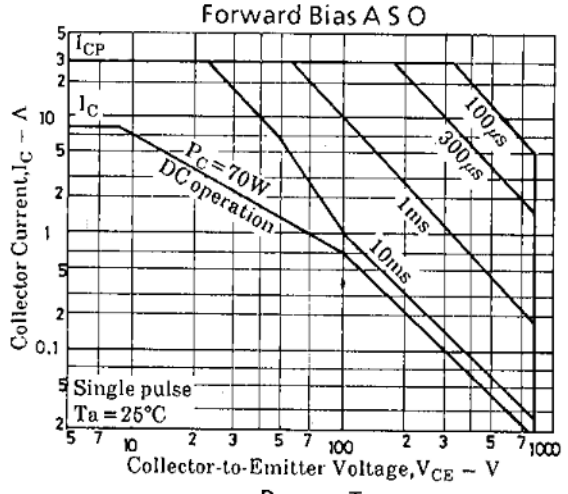
$V_{CE(sat)}$ – I_C



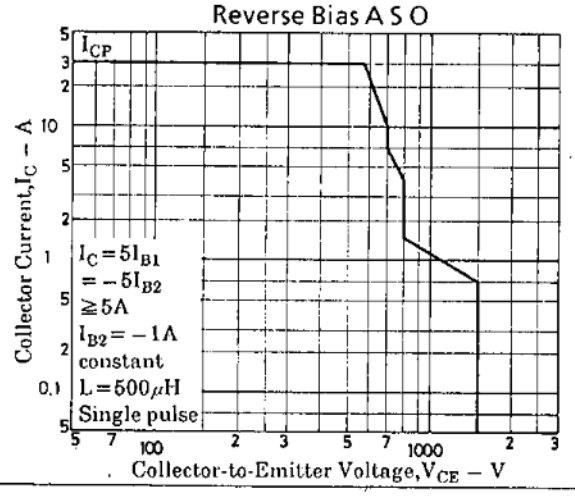
Switching Time – I_{B2}



Forward Bias A S O



Reverse Bias A S O



P_C – Ta