Ordering number: EN 2771

SANYO

No.2771

2SC3997

NPN Triple Diffused Planar Silicon Transistor

Very High-Definition Color Display Horizontal Deflection Output Applications

Features

- High speed (t_f=100ns typ)
- High breakdown voltage (V_{CBO}=1500V)
- High reliability (adoption of HVP process)
- Adoption of MBIT process

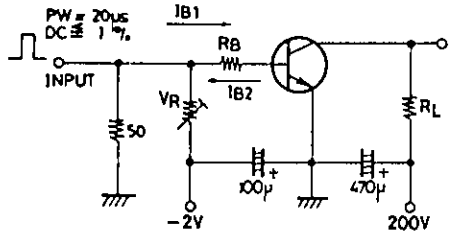
Absolute Maximum Ratings at Ta=25°C

				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		20	A
Peak Collector Current	i_{cp}		40	A
Collector Dissipation	P_C	Tc=25°C	250	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
Collector Sustain Voltage	$V_{CEO(sus)}$	I_C=100mA, I_B=0	800			V
Emitter Cutoff Current	I_{EBO}	V_{EB}=4V, I_C=0			1.0	mA
Collector Cutoff Current	I_{CBO}	V_{CB}=800V, I_E=0			10	μA
DC Current Gain	$h_{FE}(1)$	V_{CE}=5V, I_C=1.0A	8		30	
	$h_{FE}(2)$	V_{CE}=5V, I_C=16A	4		8	
C-E Saturation Voltage	$V_{CE(sat)}$	I_C=16A, I_B=4A			5	V
B-E Saturation Voltage	$V_{BE(sat)}$	I_C=16A, I_B=4A			1.5	V
Storage Time	t_{stg}	I_C=12A, I_{B1}=2.4A I_{B2}=-4.8A			3.0	μs
Fall Time	t_f	I_C=12A, I_{B1}=2.4A I_{B2}=-4.8A			0.2	μs

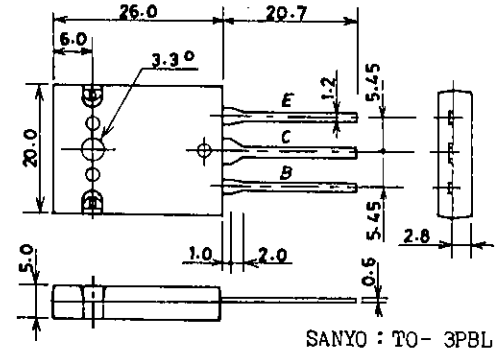
Switching Time Test Circuit



Unit (resistance:Ω, capacitance:F)

Package Dimensions 2048

(unit : mm)

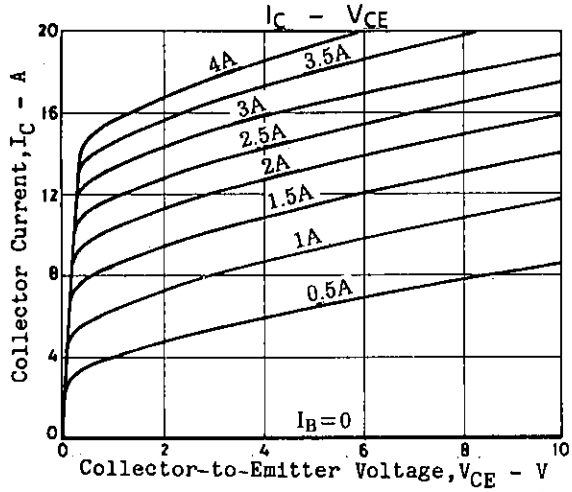


E : Emitter
C : Collector
B : Base

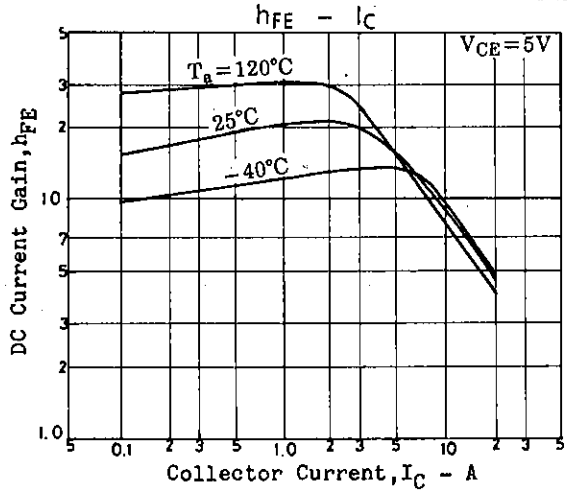
SANYO : TO- 3PBL

SANYO Electric Co.,Ltd. Semiconductor Business Headquarters
TOKYO OFFICE Tokyo Bldg.,1-10,1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

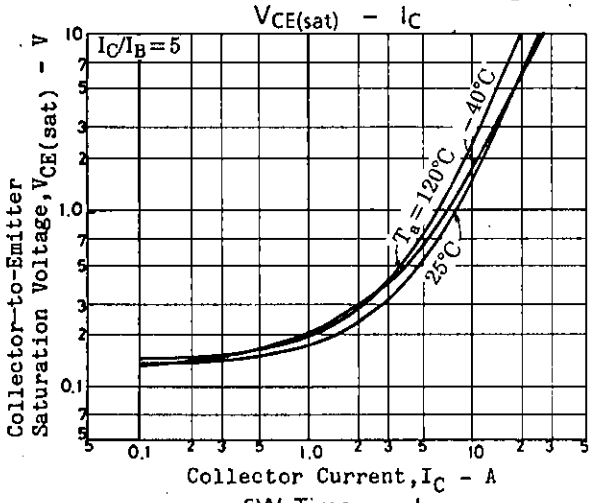
I_C – V_{CE}



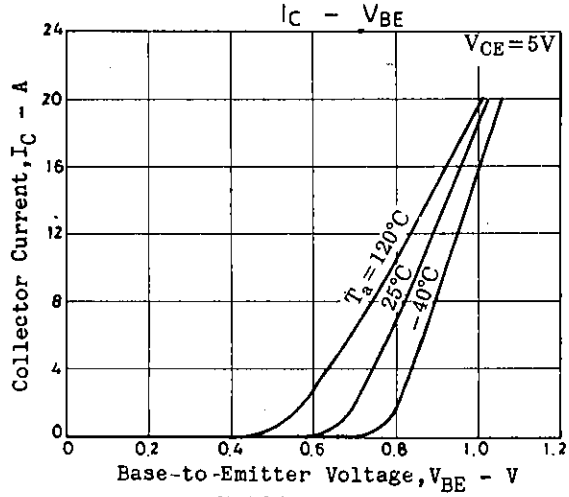
h_{FE} – I_C



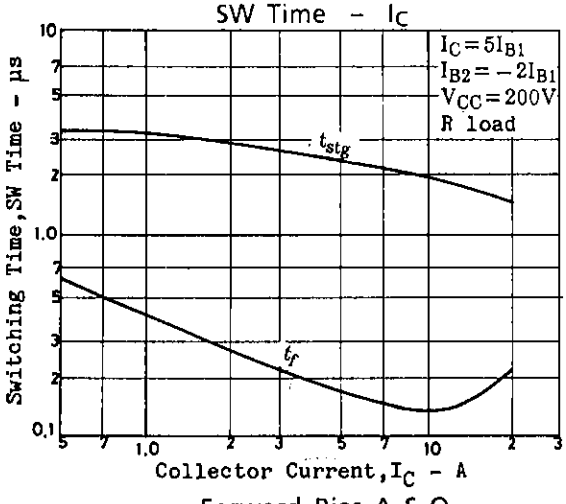
$V_{CE(sat)}$ – I_C



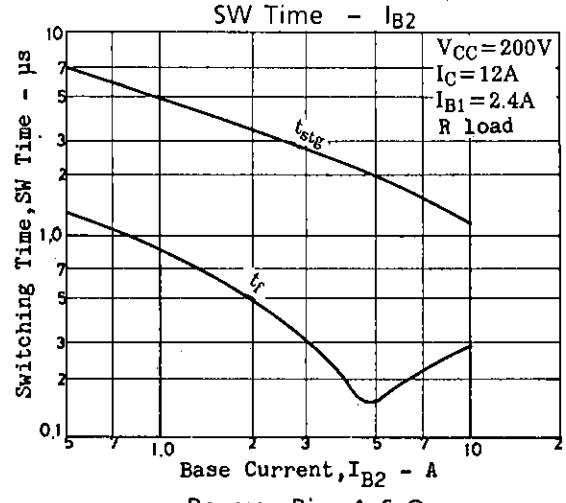
I_C – V_{BE}



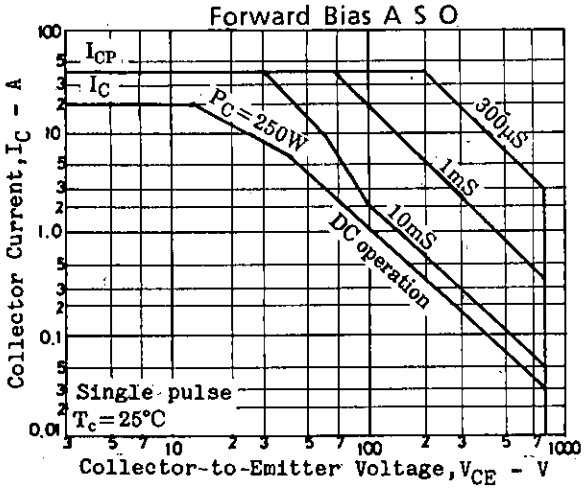
SW Time – I_C



SW Time – I_{B2}



Forward Bias A S O



Reverse Bias A S O