Ordering number : EN2966B

SANYO

No.2966B

2SC3895

NPN Triple Diffused Planar Silicon Transistor

Ultrahigh-Definition 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.

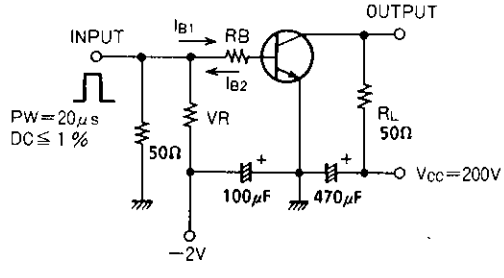
Absolute Maximum Ratings at Ta = 25°C

				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		7	A
Collector Current (Pulse)	I_{CP}		16	A
Collector Dissipation	P_C		3.0	W
		Tc = 25°C	60	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		−55 to +150	°C

Electrical Characteristics at Ta = 25°C

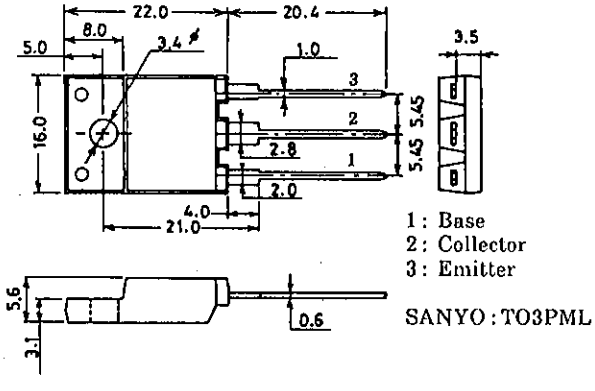
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	V_{CB} = 800V, I_E = 0			10	μA
Collector Cutoff Current	I_{CES}	V_{CE} = 1500V, R_{BE} = 0			1.0	mA
Collector Sustain Voltage	$V_{CEO(sus)}$	I_C = 100mA, I_B = 0	800			V
Emitter Cutoff Current	I_{EBO}	V_{EB} = 4V, I_C = 0			1.0	mA
C-E Saturation Voltage	$V_{CE(sat)}$	I_C = 5A, I_B = 1.2A			5	V
B-E Saturation Voltage	$V_{BE(sat)}$	I_C = 5A, I_B = 1.2A			1.5	V
DC Current Gain	$h_{FE}(1)$	V_{CE} = 5V, I_C = 1.0A	8			
	$h_{FE}(2)$	V_{CE} = 5V, I_C = 5A	4		8	
Storage Time	t_{stg}	I_C = 4A, I_{B1} = 0.8A			3.0	μs
Fall Time	t_f	I_{B2} = −1.6A		0.1	0.2	μs

Switching Time Test Circuit



Package Dimensions 2039B

(unit : mm)



1 : Base
2 : Collector
3 : Emitter

SANYO : TO3PML

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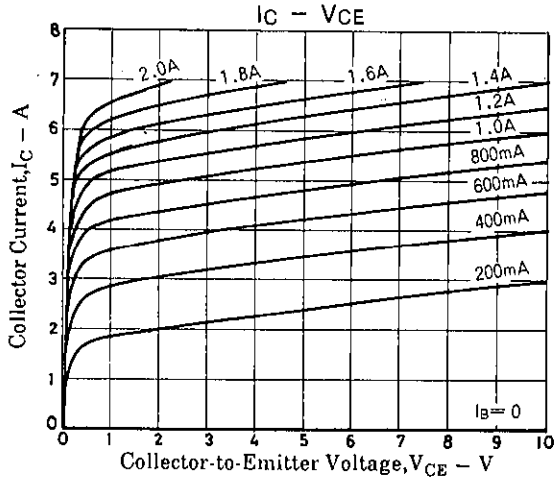
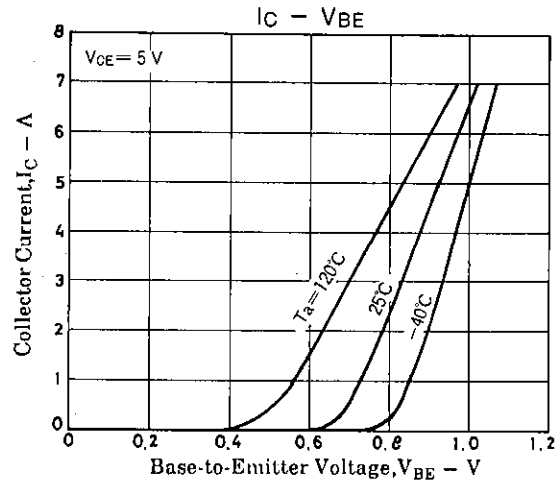
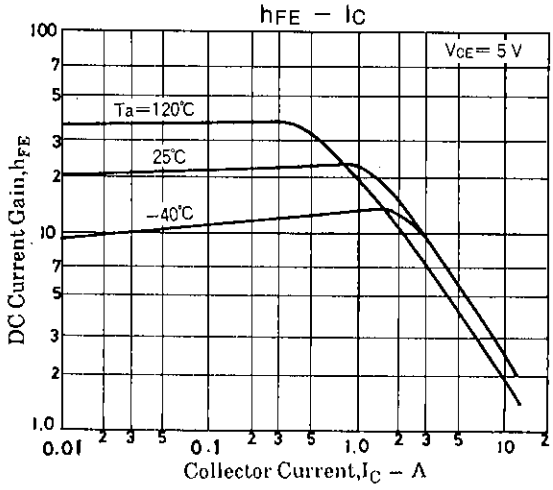
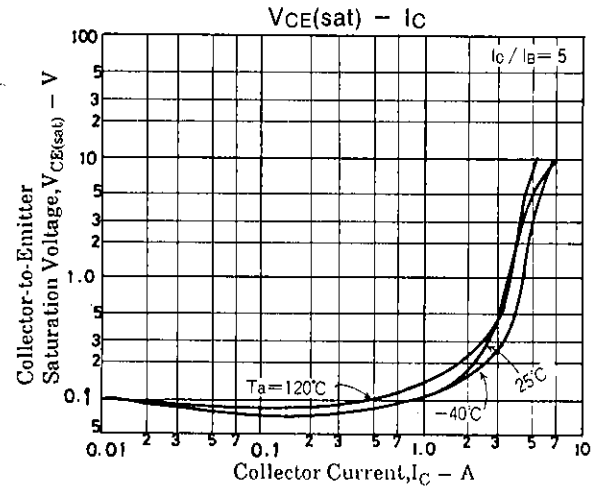
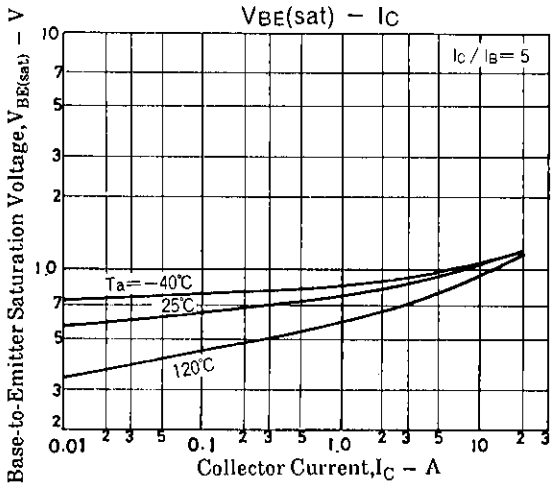
TOKYO OFFICE Tokyo Bldg.,1-10,1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

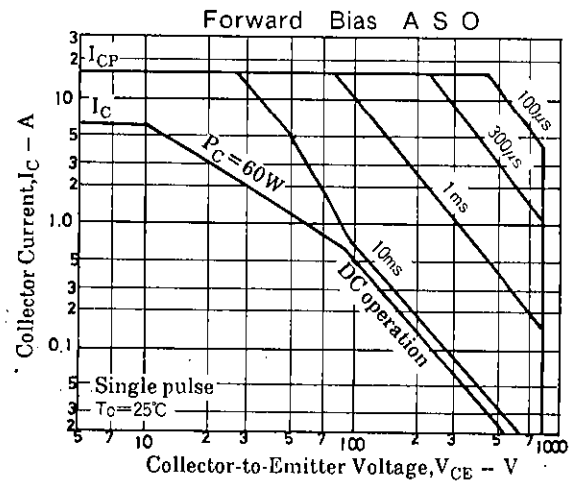

IC – VCE
Collector Current,IC – A
Collector-to-Emitter Voltage,VCE – V
2.0A
1.8A
1.6A
1.4A
1.2A
1.0A
800mA
600mA
400mA
200mA
IB= 0

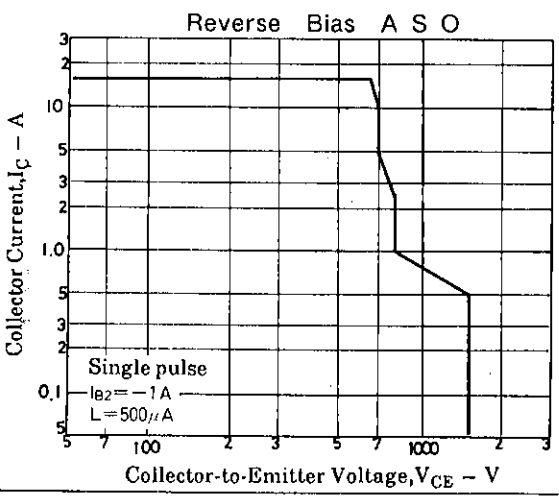

IC – VBE
Collector Current,IC – A
Base-to-Emitter Voltage,VBE – V
VCE= 5 V
Ta=120℃
25℃
–40℃

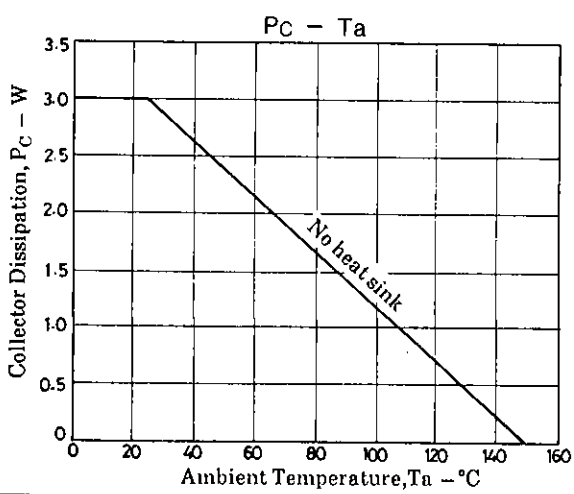

hFE – IC
DC Current Gain,hFE
Collector Current,IC – A
VCE= 5 V
Ta=120℃
25℃
–40℃


VCE(sat) – IC
Collector-to-Emitter Saturation Voltage,VCE(sat) – V
Collector Current,IC – A
IC / IB= 5
Ta=120℃
25℃
–40℃


VBE(sat) – IC
Base-to-Emitter Saturation Voltage,VBE(sat) – V
Collector Current,IC – A
IC / IB= 5
Ta=–40℃
25℃
120℃


Forward Bias A S O
Collector Current,IC – A
Collector-to-Emitter Voltage,VCE – V
ICP
IC
PC=60W
100μs
300μs
1ms
10ms
DC operation
Single pulse
TC=25℃


Reverse Bias A S O
Collector Current,IC – A
Collector-to-Emitter Voltage,VCE – V
Single pulse
IB2=–1A
L=500μA


PC – Ta
Collector Dissipation, PC – W
Ambient Temperature,Ta – °C
No heat sink