Ordering number: EN 1627B

SANYO

No.1627B

2SC3643

NPN Triple Diffused Planar Silicon Transistor
VERY HIGH-DEFINITION DISPLAY
HORIZONTAL DEFLECTION OUTPUT APPLICATIONS

Features

- High reliability (Adoption of HVP process)
- Fast speed.
- High breakdown voltage.
- Adoption of MBIT process.

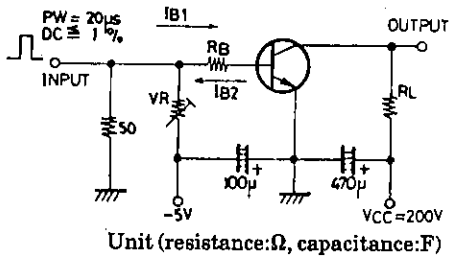
Asbolute Maximum Ratings at Ta=25°C

				unit
Collector-to-Base Voltage	V_{CBO}		1200	V
Collector-to-Emitter Voltage	V_{CEO}		800	V
Emitter-to-Base Voltage	V_{EBO}		7	V
Collector Current	I_C		8	A
Peak Collector Current	icp		16	A
Collector Dissipation	P_C	Tc=25°C	140	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Electrical Characteristics at Ta=25°C

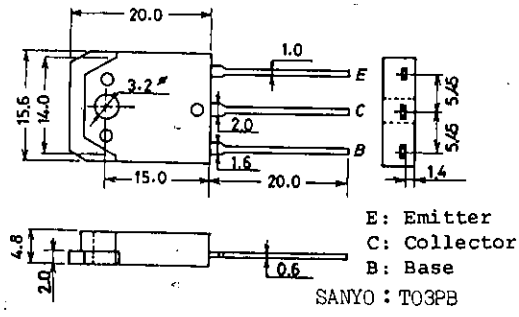
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	V_{CB}=800V, I_E=0			10	μA
	I_{CES}	V_{CE}=1200V, R_{BE}=0			0.5	mA
Collector-to-Emitter Sustain Voltage	$V_{CEO(sus)}$	I_C=100mA, I_B=0	800			V
Emitter Cutoff Current	I_{EBO}	V_{EB}=5V, I_C=0			1	mA
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=6A, I_B=1.2A			5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=6A, I_B=1.2A			1.5	V
DC Current Gain	h_{FE}	V_{CE}=5V, I_C=1.2A	8			
Storage Time	tstg	I_C=6A, I_{B1}=1.2A, I_{B2}=-2.4A			3.0	μs
Fall Time	tf	I_C=6A, I_{B1}=1.2A, I_{B2}=-2.4A		0.1	0.2	μs

Switching Time Test Circuit



Unit (resistance:Ω, capacitance:F)

Package Dimensions 2022
(unit: mm)



E: Emitter
C: Collector
B: Base
SANYO : TO3PB

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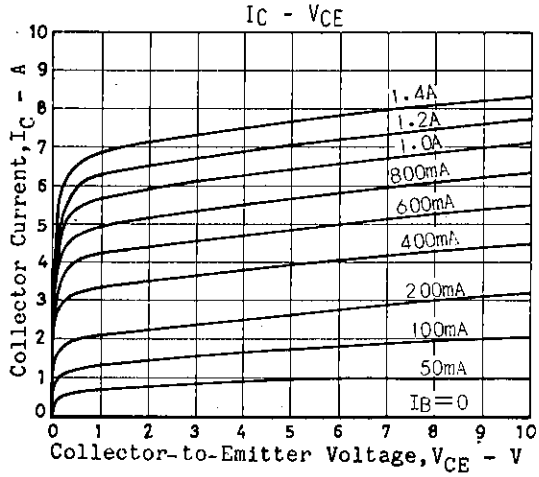
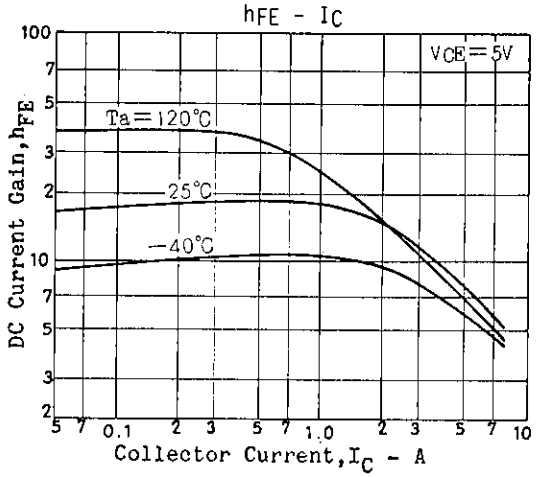
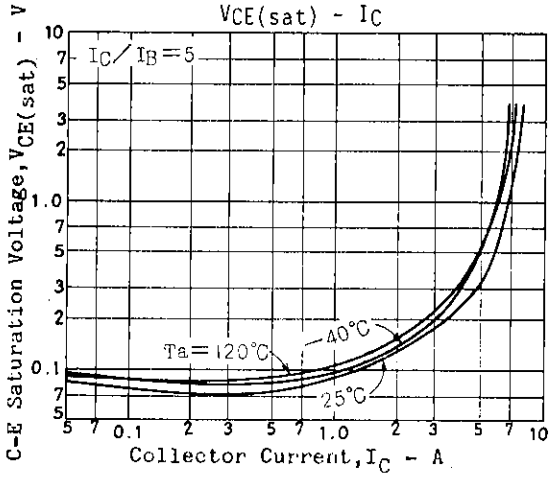
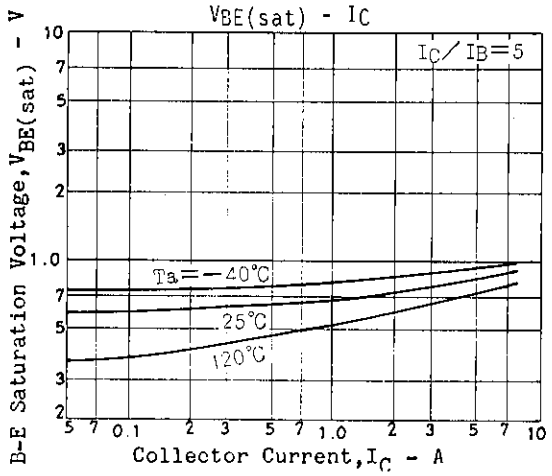
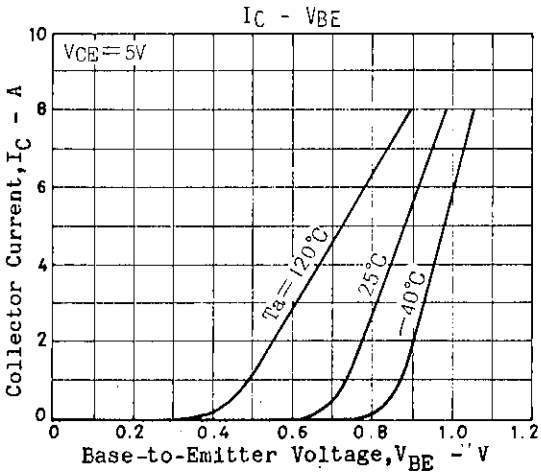
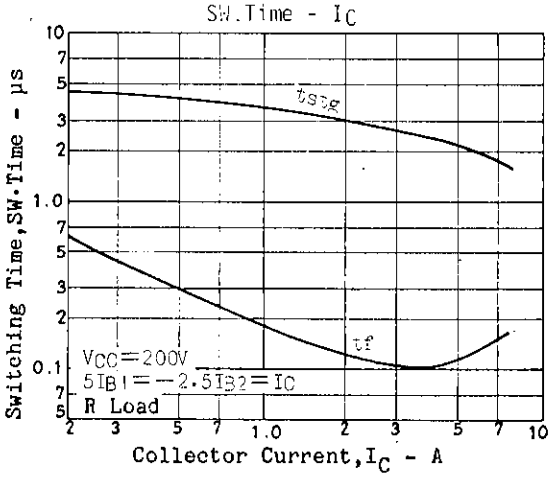

IC - VCE
Collector Current, IC - A
Collector-to-Emitter Voltage, VCE - V
1.4A
1.2A
1.0A
800mA
600mA
400mA
200mA
100mA
50mA
IB=0

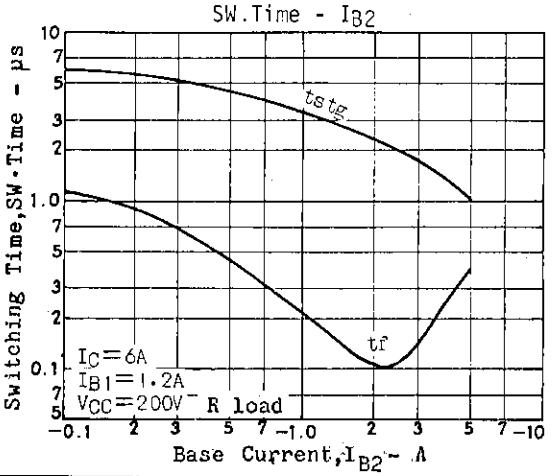

hFE - IC
DC Current Gain, hFE
Collector Current, IC - A
VCE=5V
Ta=120°C
25°C
−40°C

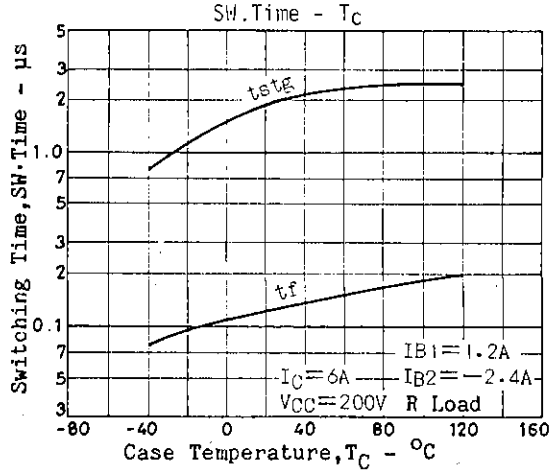

VCE(sat) - IC
C-E Saturation Voltage, VCE(sat) - V
Collector Current, IC - A
IC/IB=5
Ta=120°C
−40°C
25°C


VBE(sat) - IC
B-E Saturation Voltage, VBE(sat) - V
Collector Current, IC - A
IC/IB=5
Ta=−40°C
25°C
120°C


IC - VBE
Collector Current, IC - A
Base-to-Emitter Voltage, VBE - V
VCE=5V
Ta=120°C
25°C
−40°C


SW.Time - IC
Switching Time, SW.Time - μs
Collector Current, IC - A
tstg
tf
VCC=200V
5IB1=−2.5IB2=IC
R Load


SW.Time - IB2
Switching Time, SW.Time - μs
Base Current, IB2 - A
tstg
tf
IC=6A
IB1=1.2A
VCC=200V R load


SW.Time - TC
Switching Time, SW.Time - μs
Case Temperature, TC - °C
tstg
tf
IB1=1.2A
IC=6A
IB2=−2.4A
VCC=200V R Load