Ordering number: EN4138

SANYO No.4138

2SC4891

NPN Triple Diffused Planar Silicon Transistor

Very High-Definition CRT Display Horizontal Deflection Output Applications

Features

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

Absolute Maximum Ratings at Ta=25°C

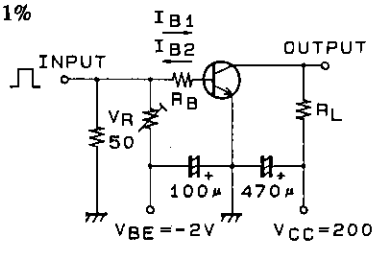
				unit
Collector-to-Base Voltage	V_{CBO}		1500	V
Collector-to-Emitter Voltage	V_{CEO}		800	V
Emitter-to-Base Voltage	V_{EBO}		6	V
Collector Current	I_C		15	A
Peak Collector Current	i_{cp}		35	A
Collector Dissipation	P_C		3.0	W
		Tc=25°C	75	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		−55 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=12A, I_B=3.0A			5	V
B-E Saturation Voltage	$V_{BE(sat)}$	I_C=12A, I_B=3.0A			1.5	V
DC Current Gain	h_{FE}(1)	V_{CE}=5V, I_C=1.0A	8		30	
	h_{FE}(2)	V_{CE}=5V, I_C=12A	4		8	
Storage Time	t_{stg}	I_C=8A, I_{B1}=1.6A, I_{B2}=−3.2A			3.0	μs
Fall Time	t_f	I_C=8A, I_{B1}=1.6A, I_{B2}=−3.2A			0.2	μs

Switching Time Test Circuit

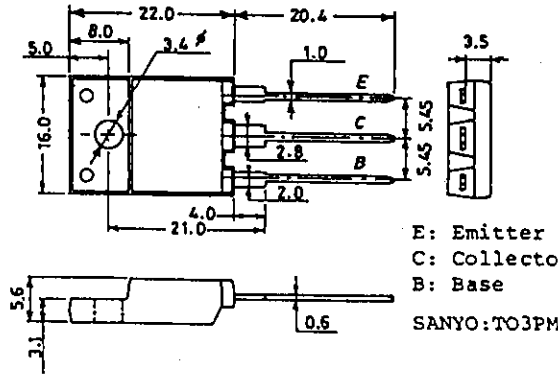
PW=20μs
DC≦1%



A00653

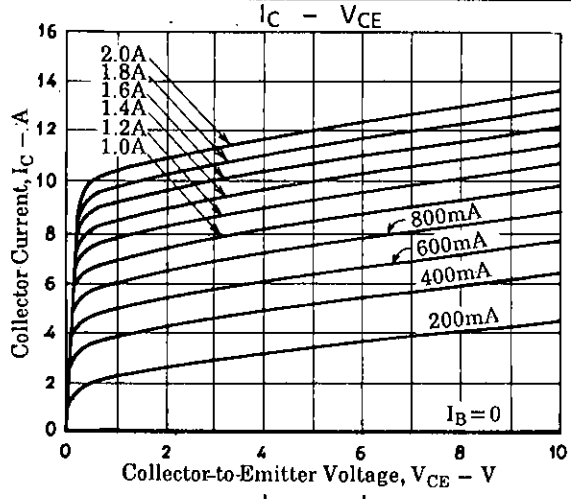
Unit (resistance:Ω, capacitance:F)

Package Dimensions 2039A
(unit: mm)

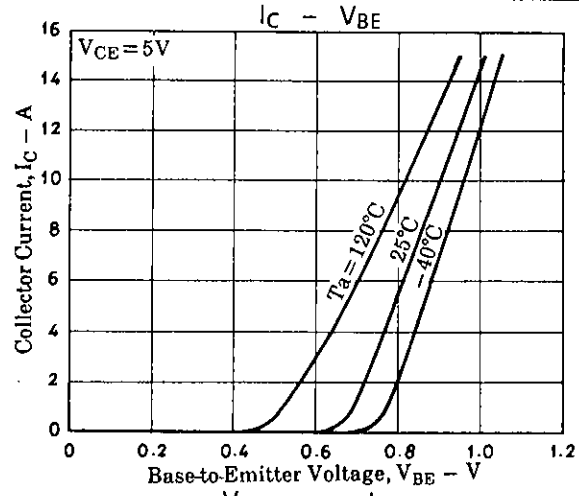


SANYO Electric Co.,Ltd. Semiconductor Business Headquarters
TOKYO OFFICE Tokyo Bldg., 1-10,1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

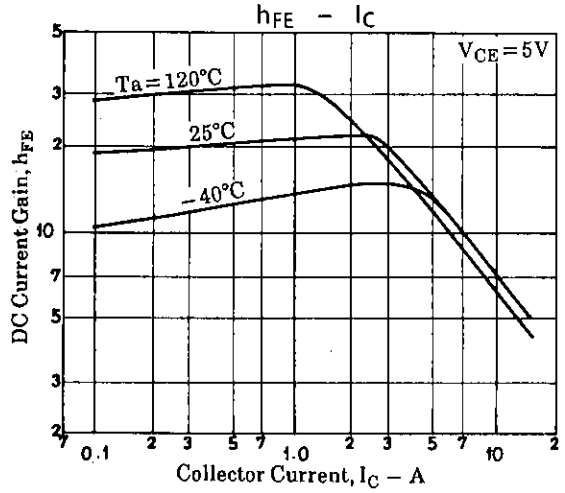
I_C – V_{CE}



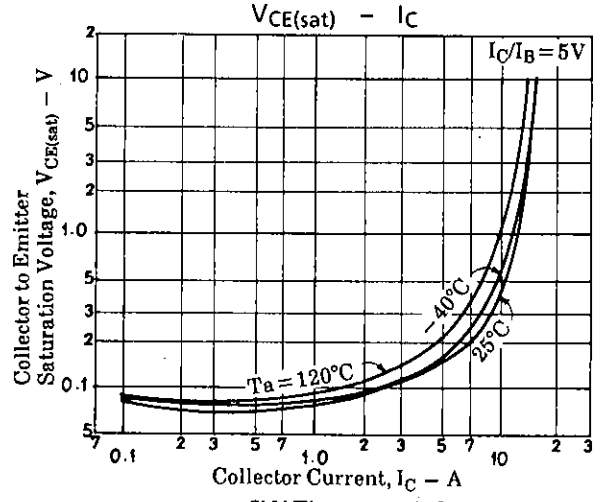
I_C – V_{BE}



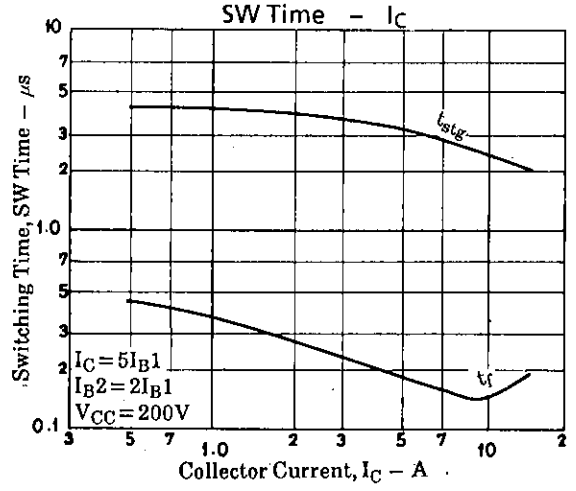
h_{FE} – I_C



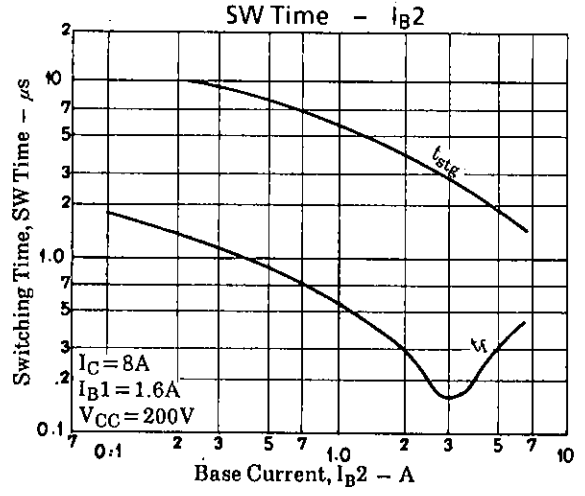
$V_{CE(sat)}$ – I_C



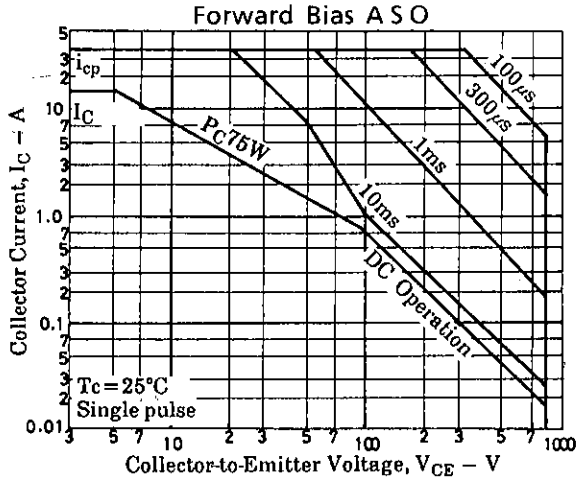
SW Time – I_C



SW Time – I_{B2}



Forward Bias A S O



Reverse Bias A S O