Ordering number:EN4137

NPN Triple Diffused Planar Silicon Transistor

2SC4890

Ultrahigh-Definition CRT Display Horizontal Deflection Output Applications

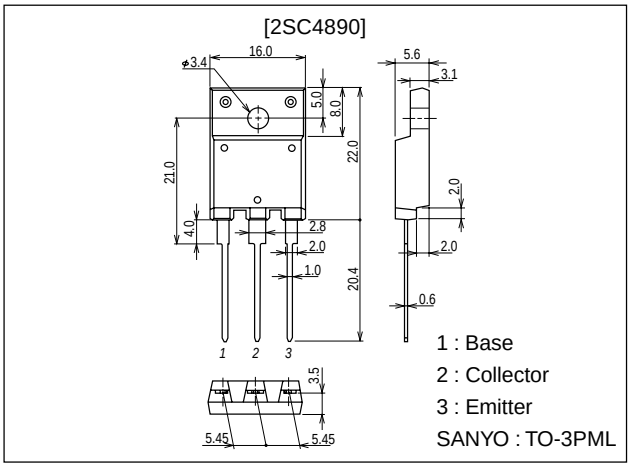
Features

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

Package Dimensions

unit:mm

2039D



Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	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		12	A
Collector Current (Pulse)	I_{CP}		30	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

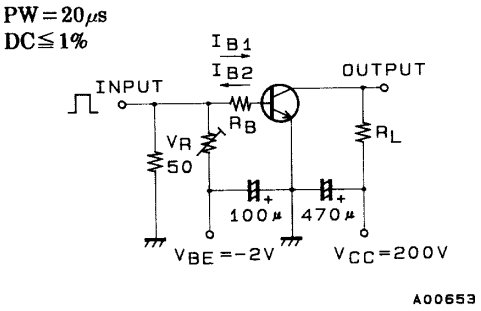
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CES}	V_{CE}=1500V, R_{BE}=0			1.0	mA
	I_{CBO}	V_{CB}=800V, I_E=0			10	μA
Collector-to-Emitter Sastain Voltage	$V_{CEO(sus)}$	I_C=100mA, I_B=0	800			V
Emitter Cutoff Current	I_{EBO}	V_{EB}=4V, I_C=0			1.0	mA
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=10A, I_B=2.5A			5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=10A, I_B=2.5A			1.5	V

SANYO Electric Co.,Ltd. Semiconductor Bussiness Headquaters

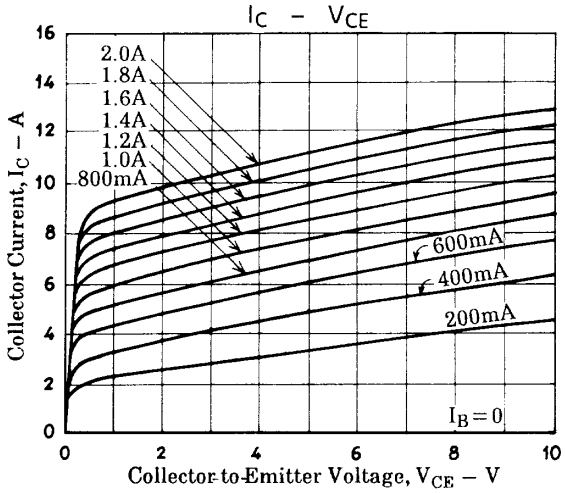
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

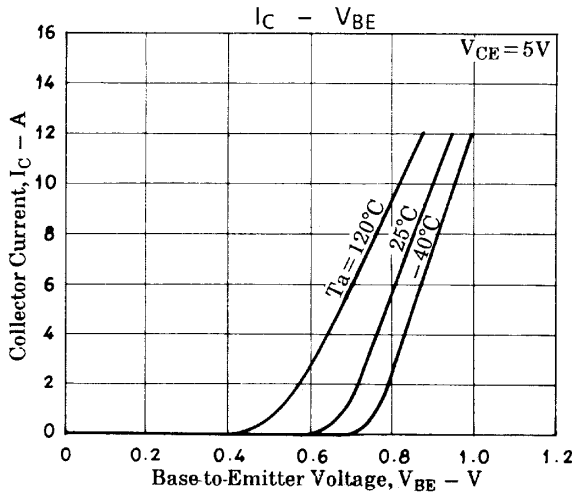
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
DC Current Gain	$h_{FE}1$	V_{CE}=5V, I_C=1.0A	8		30	
	$h_{FE}2$	V_{CE}=5V, I_C=10A	4		8	
Storage Time	t_{stg}	I_C=8A, I_{B1}=1.6A, I_{B2}=–3.2A			3.0	μs
Fall Time	t_f	I_C=8A, I_{B1}=1.6A, I_{B2}=–3.2A			0.2	μs

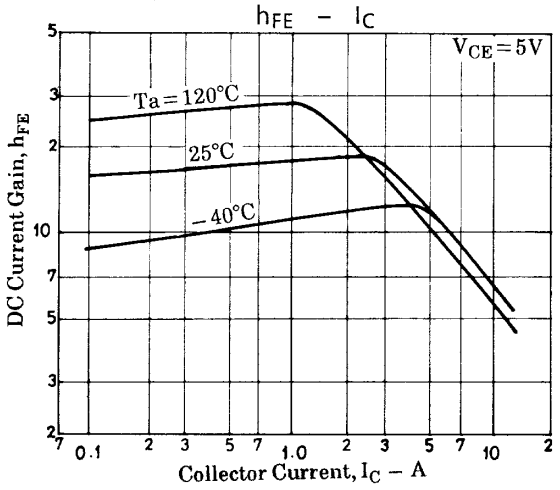
Switching Time Test Circuit

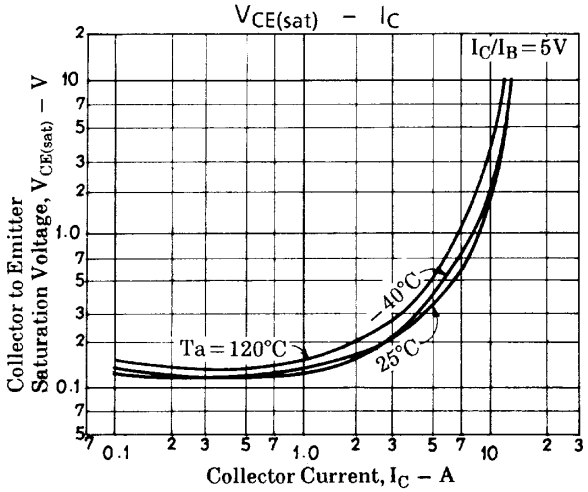


Unit (resistance:Ω, capacitance:F)

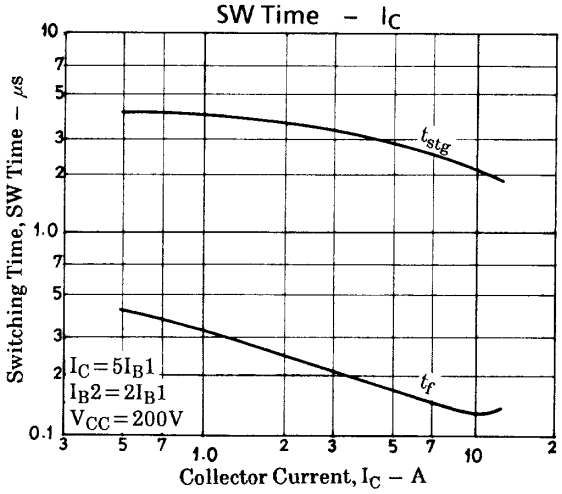




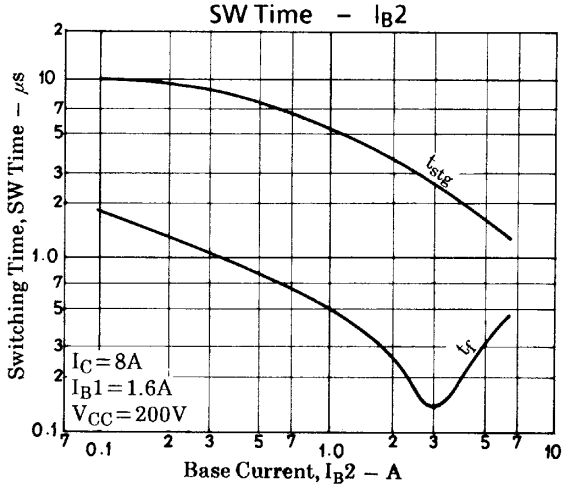




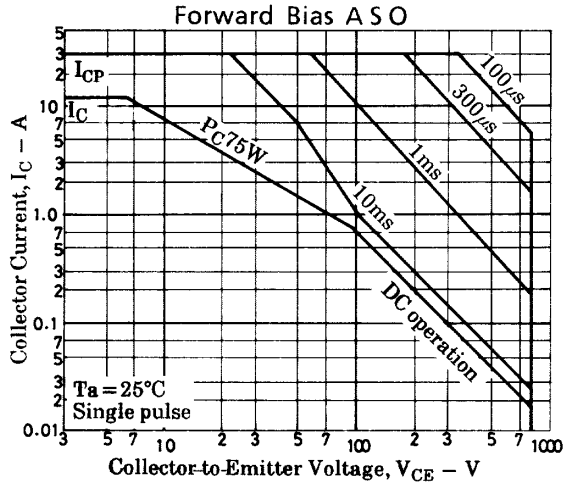
SW Time – I_C



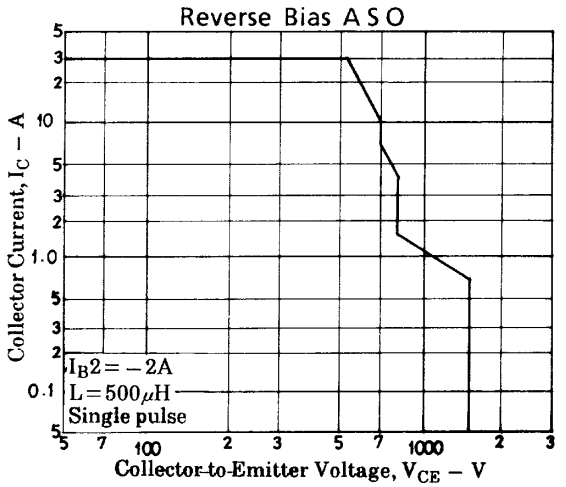
SW Time – I_{B2}



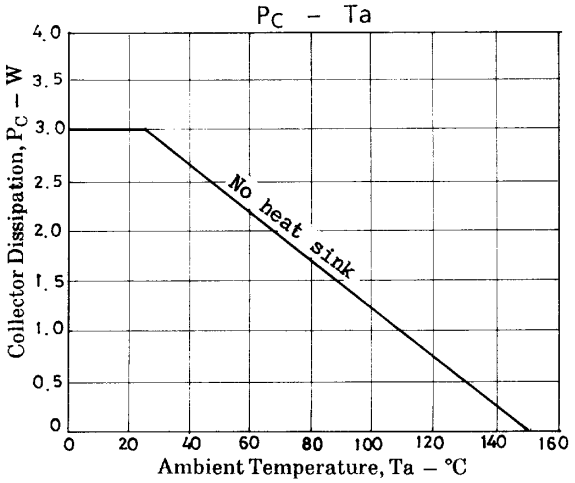
Forward Bias A S O



Reverse Bias A S O



Pc – Ta



Pc – Tc