

2SC3896

# **Ultrahigh-Definition CRT Display Horizontal Deflection Output Applications**

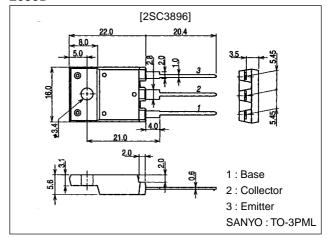
#### **Features**

- · High speed ( $t_f=100$ ns typ).
- · High reliability (Adoption of HVP process).
- · High breakdown voltage (V<sub>CBO</sub>=1500V).
- $\cdot \ Adoption \ of \ MBIT \ process.$

## **Package Dimensions**

unit:mm

2039D



## **Specifications**

### Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V <sub>CBO</sub>		1500	V
Collector-to-Emitter Voltage	VCEO		800	V
Emitter-to-Base Voltage	VEBO		6	V
Collector Current	IC		8	Α
Collector Current (Pulse)	I <sub>CP</sub>		25	Α
Collector Dissipation	PC		3.0	W
		Tc=25°C	70	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

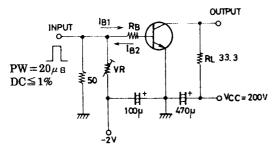
#### Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Oilit
Collector Cutoff Current	I <sub>CBO</sub>	V <sub>CB</sub> =800V, I <sub>E</sub> =0			10	μΑ
	ICES	V <sub>CE</sub> =1500V, R <sub>BE</sub> =0			1.0	mA
Collector-to-Emitter Sastain Voltage	V <sub>CEO(sus)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> =0	800			V
Emitter Cutoff Current	I <sub>EBO</sub>	$V_{EB}=4V, I_{C}=0$			1.0	mA
Collector-to-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =6A, I <sub>B</sub> =1.5A			5	V
Base-to-Emitter Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =6A, I <sub>B</sub> =1.5A			1.5	V

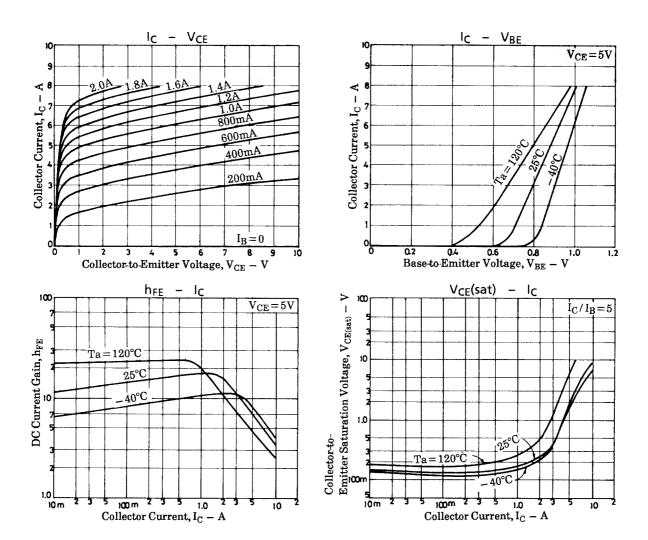
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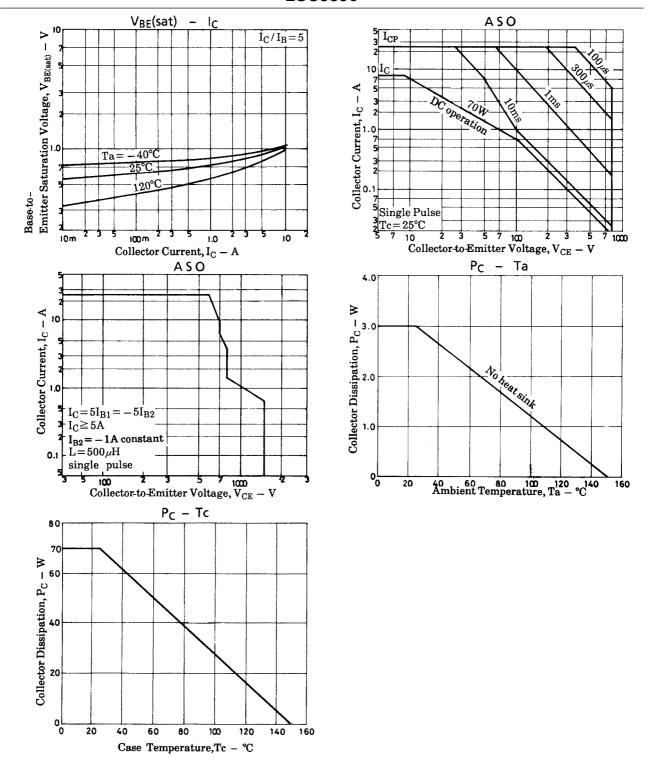
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Oilit
DC Current Gain	h <sub>FE</sub> 1	V <sub>CE</sub> =5V, I <sub>C</sub> =1A	8			
	h <sub>FE</sub> 2	V <sub>CE</sub> =5V, I <sub>C</sub> =6A	4		8	
Storage Time	t <sub>stg</sub>	I <sub>C</sub> =6A, I <sub>B1</sub> =1.2A, I <sub>B2</sub> =-2.4A			3.0	μs
Fall Time	t <sub>f</sub>	I <sub>C</sub> =6A, I <sub>B1</sub> =1.2A, I <sub>B2</sub> =-2.4A		0.1	0.2	μs

## **Switching Time Test Circuit**



Unit (resistance: $\Omega$ , capacitance:F)





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