

# 2SD1881

# Color TV Horizontal Deflection Output Applications

## **Applications**

- · Color TV horizontal diflection output.
- · Color display horizontal deflection output.

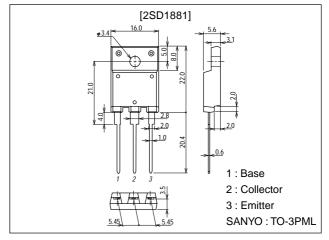
#### **Features**

- · High speed ( $t_f=100$ ns).
- · High breakdown voltage (V<sub>CBO</sub>=1500V).
- · High reliability (adoption of HVP process).
- · On-chip damper diode.

#### **Package Dimensions**

unit:mm

2039D



## **Specifications**

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

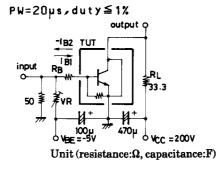
Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V <sub>CBO</sub>		1500	V
Collector-to-Emitter Voltage	VCEO		800	V
Emitter-to-Base Voltage	VEBO		6	V
Collector Current	lc		10	Α
Collector Current (Pulse)	I <sub>CP</sub>		30	Α
Collector Dissipation	PC	Tc=25°C	70	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

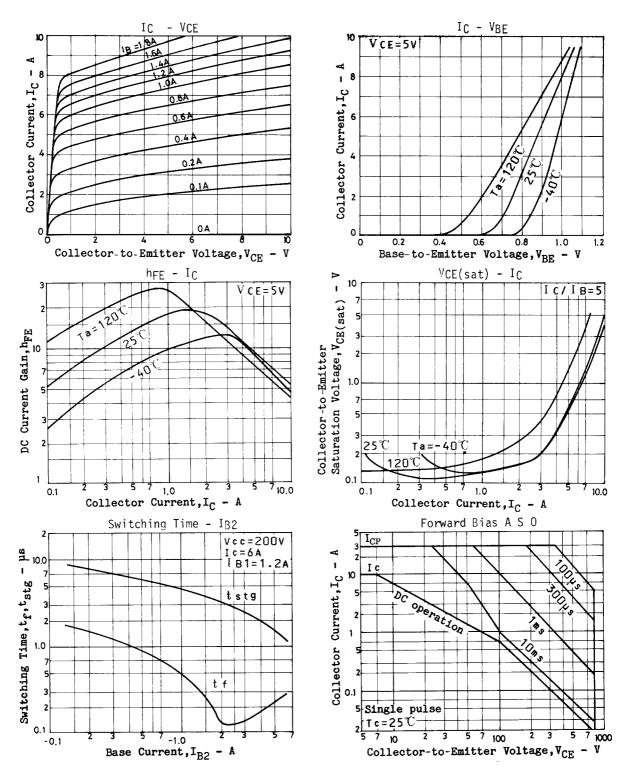
#### Electrical Characteristics at Ta = 25°C

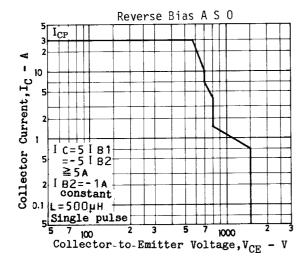
Parameter	Symbol	Conditions		Ratings		
	Symbol		min	typ	max	Unit
Collector Cutoff Current	ICES	V <sub>CE</sub> =1500V			1.0	mA
	I <sub>CBO</sub>	V <sub>CB</sub> =800V			10	μΑ
Collector-to-Emitter Sustain Voltage	VCEO(sus)	I <sub>C</sub> =100mA, I <sub>B</sub> =0	800			V
Emitter Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> =4V	40		130	mA
Collector-to-Emitter Saturation Voltage	VCE(sat)	I <sub>C</sub> =8A, I <sub>B</sub> =1.6A			5	V
Base-to-Emitter Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =8A, I <sub>B</sub> =1.6A			1.5	V
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> =8A	5		10	
Diode Forward Voltage	V <sub>F</sub>	I <sub>EC</sub> =10A			2.0	V
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	0.3	μs

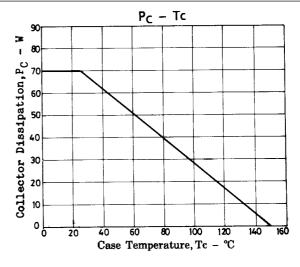
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#### **Switching Time Test Circuit**









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