



**2SD1876**

## Color TV Horizontal Deflection Output Applications

## Applications

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

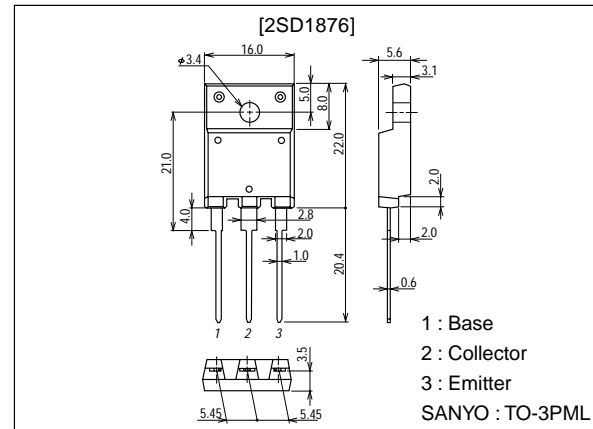
## Features

- High speed ( $t_f=100\text{ns}$ ).
- High breakdown voltage ( $V_{\text{CBO}}=1500\text{V}$ ).
- 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	$V_{CBO}$		1500	V
Collector-to-Emitter Voltage	$V_{CEO}$		800	V
Emitter-to-Base Voltage	$V_{EBO}$		6	V
Collector Current	$I_C$		3	A
Collector Current (Pulse)	$I_{CP}$		12	A
Collector Dissipation	$P_C$		50	W
Junction Temperature	$T_j$		150	°C
Storage Temperature	$T_{stg}$		−55 to +150	°C

### Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	$I_{CES}$	$V_{CE}=1500V$			1.0	mA
	$I_{CBO}$	$V_{CB}=800V$			10	$\mu A$
Collector-to-Emitter Sustain Voltage	$V_{CEO(sus)}$	$I_C=100mA, I_B=0$	800			V
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=4V$	40		130	mA
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=2A, I_B=0.6A$			5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=2A, I_B=0.6A$			1.5	V
DC Current Gain	$h_{FE1}$	$V_{CE}=5V, I_C=0.5A$	8			
	$h_{FE2}$	$V_{CE}=5V, I_C=2A$	3		6	
Diode Forward Voltage	$V_F$	$I_{EC}=3A$			2.0	V
Fall Time	$t_f$	$I_C=3A, I_{B1}=0.8A, I_{B2}=-1.6A$		0.1	0.3	$\mu s$

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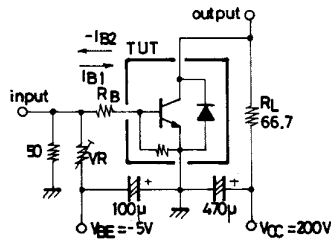
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TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

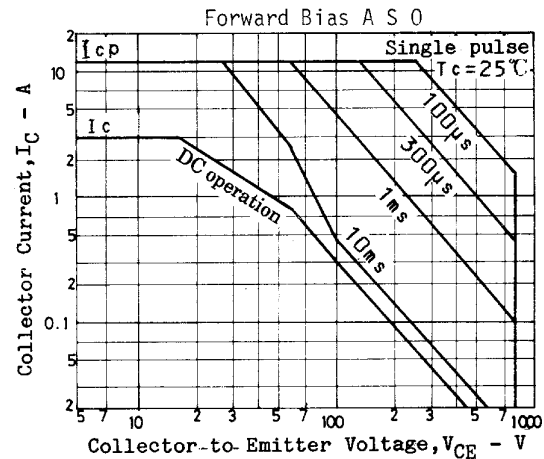
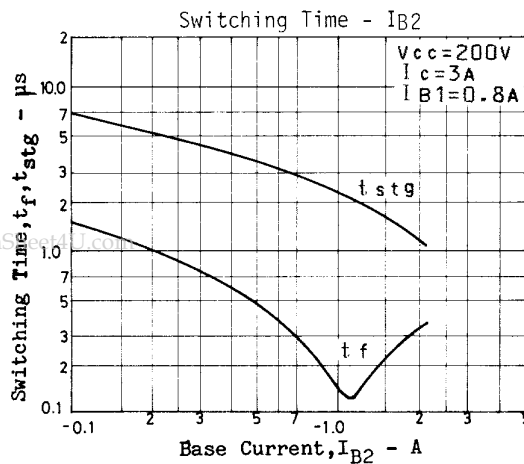
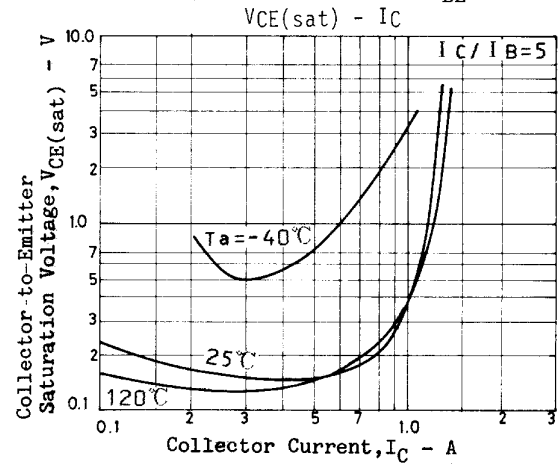
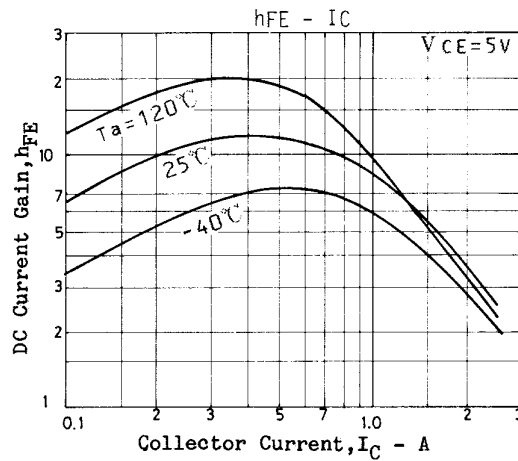
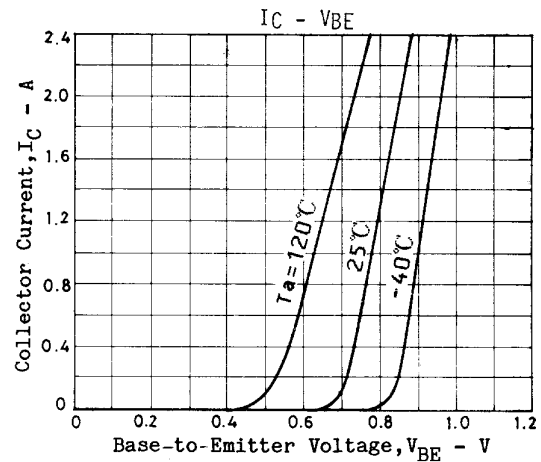
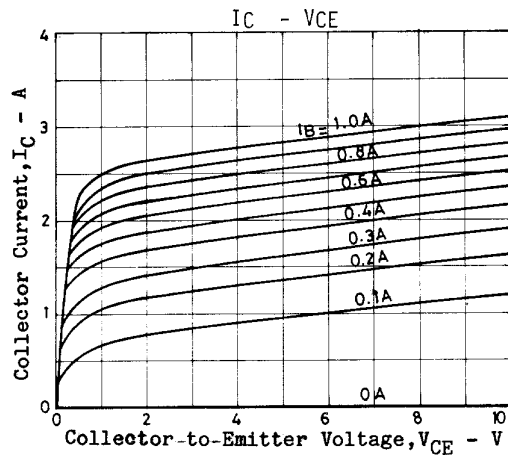
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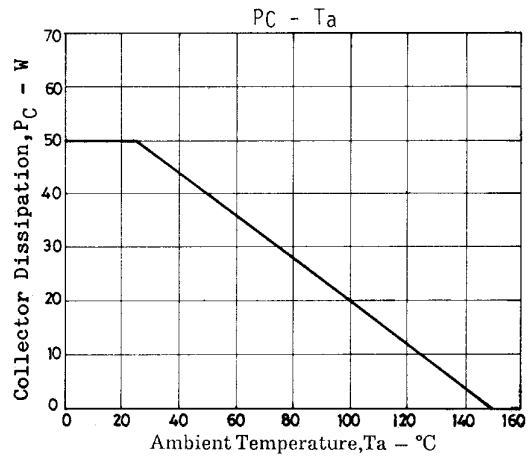
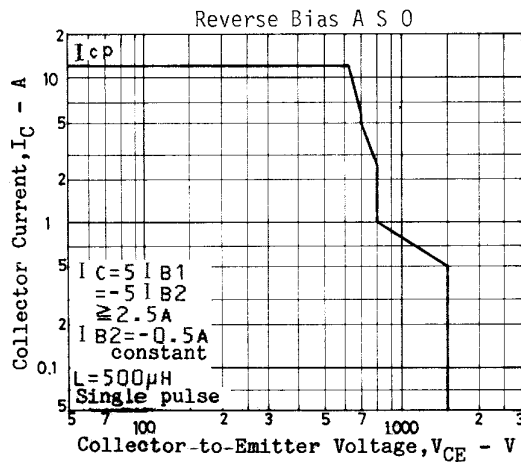
# Switching Time Test Circuit



PW=20μs, duty ≤ 1%

Unit (resistance:Ω, capacitance:F)





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