

<b>SANYO</b>	No.3741A	<b>2SD2251</b>
	NPN Triple Diffused Planar Silicon Transistor Color TV Horizontal Deflection Output Applications	

### Features

- High speed ( $t_f = 100\text{ns}$  typ).
- High breakdown voltage ( $V_{CBO} = 1500\text{V}$ ).
- High reliability (Adoption of HVP process).
- On-chip damper diode.

### Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

			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	$I_C$	7	A
Collector Current (Pulse)	$I_{CP}$	20	A
Collector Dissipation	$P_C$	3.0	W
		60	W
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

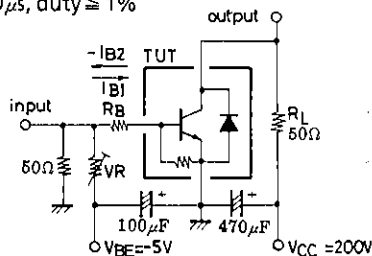
$T_c = 25^\circ\text{C}$

### Electrical Characteristics at $T_a = 25^\circ\text{C}$

			min	typ	max	unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = 800\text{V}$			10	$\mu\text{A}$
Collector Cutoff Current	$I_{CES}$	$V_{CE} = 1500\text{V}$			1.0	mA
Collector Sustain Voltage	$V_{CEO(sus)}$	$I_C = 100\text{mA}, I_B = 0$	800			V
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 4\text{V}$	40		130	mA
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = 5\text{A}, I_B = 1.0\text{A}$			5	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = 5\text{A}, I_B = 1.0\text{A}$			1.5	V
DC Current Gain	$h_{FE1}$	$V_{CE} = 5\text{V}, I_C = 1\text{A}$	8			
	$h_{FE2}$	$V_{CE} = 5\text{V}, I_C = 5\text{A}$	5		8	
Diode Forward Voltage	$V_F$	$I_{EC} = 7\text{A}, I_B = 0$			2.0	V
Fall Time	$t_f$	$I_C = 4\text{A}, I_{B1} = 0.8\text{A}, I_{B2} = -1.6\text{A}$		0.1	0.3	$\mu\text{s}$

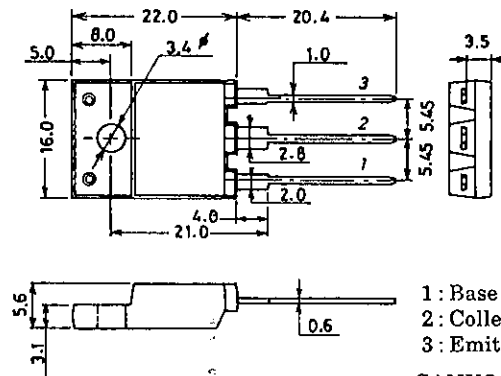
### Switching Time Test Circuit

PW = 20  $\mu\text{s}$ , duty  $\leq 1\%$



### Package Dimensions 2039C

(unit: mm)



1: Base  
2: Collector  
3: Emitter

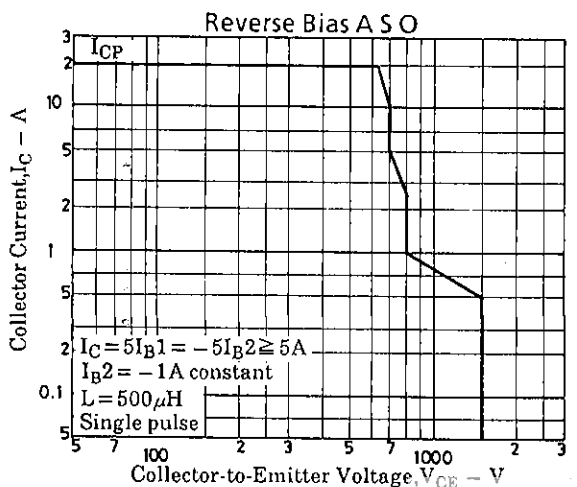
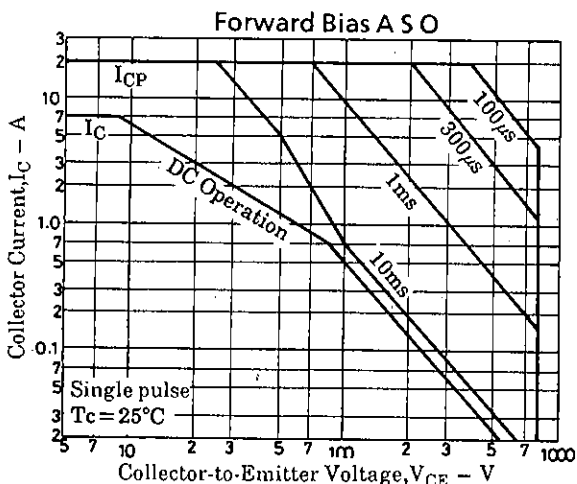
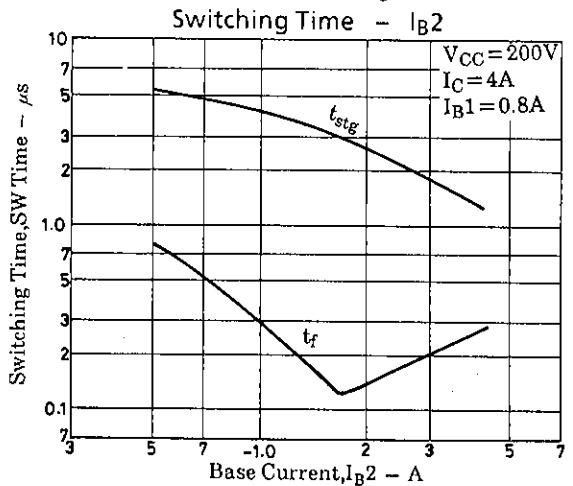
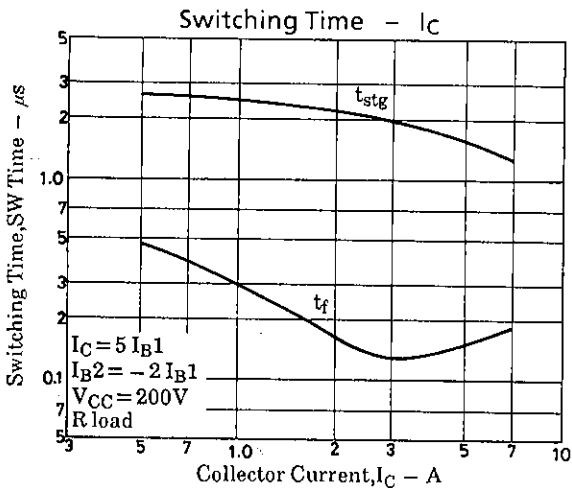
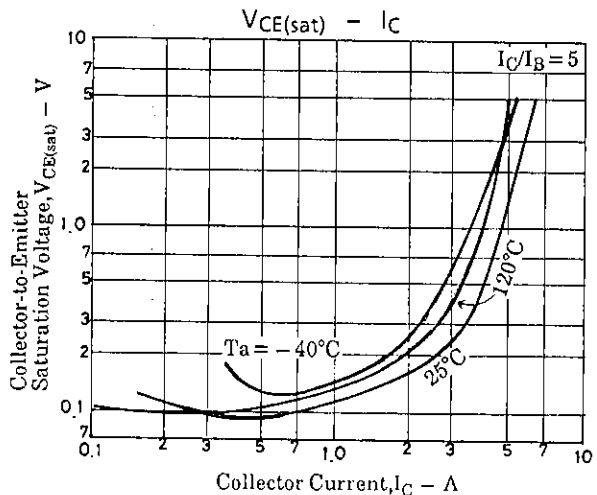
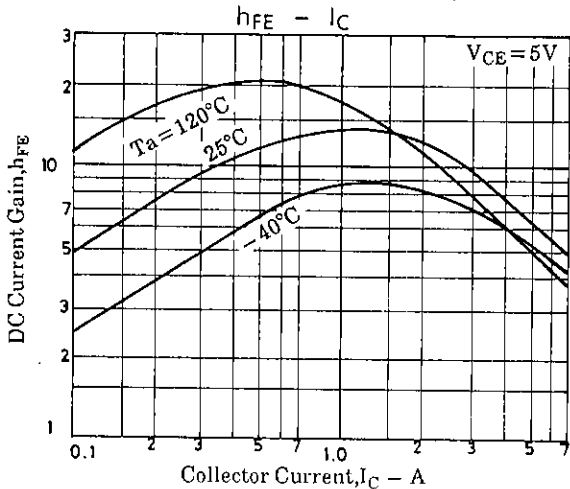
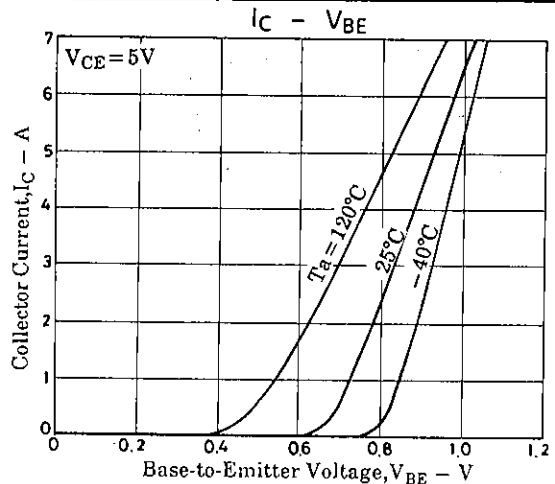
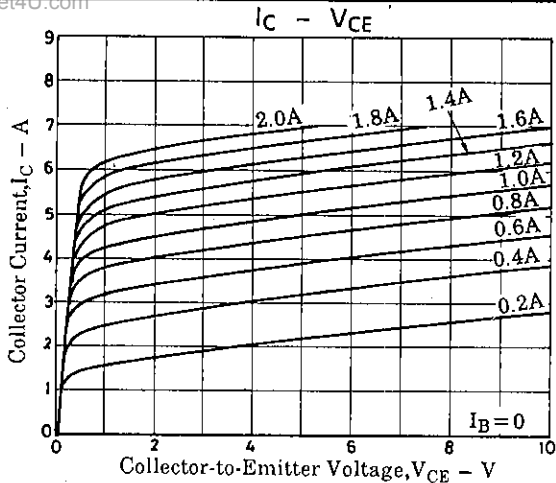
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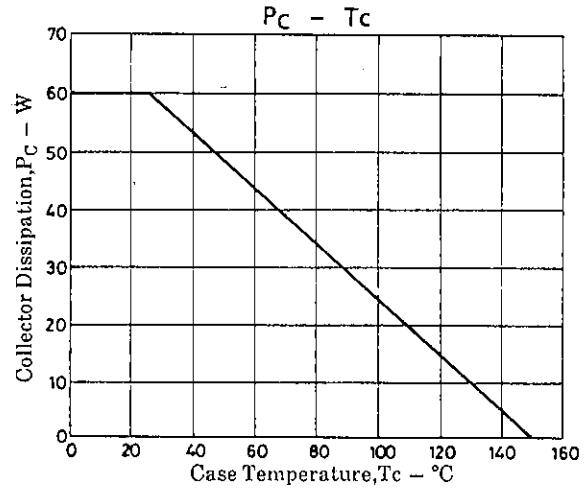
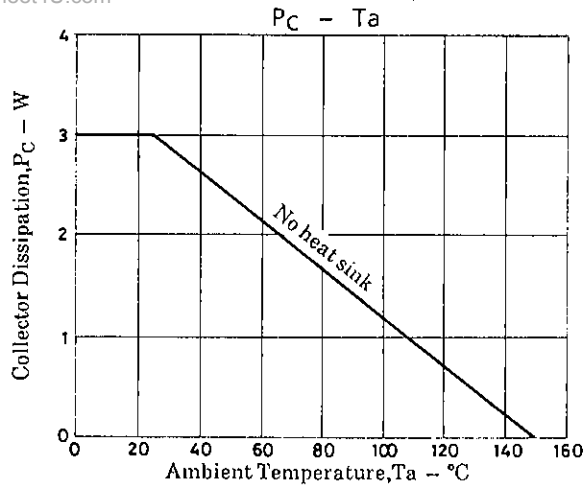
**SANYO Electric Co., Ltd. Semiconductor Business Headquarters**

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

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90794MT (KOTO) BX-0937, 8-7561, 8165 No.3741-1/3





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