

SANYO	No.3741A	2SD2251
	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 $T_a = 25^\circ\text{C}$

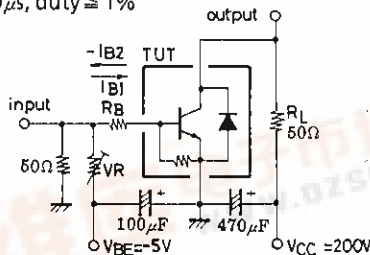
Parameter	Symbol	Value	unit
Collector-to-Base Voltage	V_{CBO}	1500	V
Collector-to-Emitter Voltage	V_{CEO}	800	V
Emitter-to-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	7	A
Collector Current (Pulse)	I_{CP}	20	A
Collector Dissipation	P_C	3.0	W
$T_c = 25^\circ\text{C}$			
Junction Temperature	T_j	60	W
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Test Conditions	min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 800\text{V}$			10	μA
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	μs

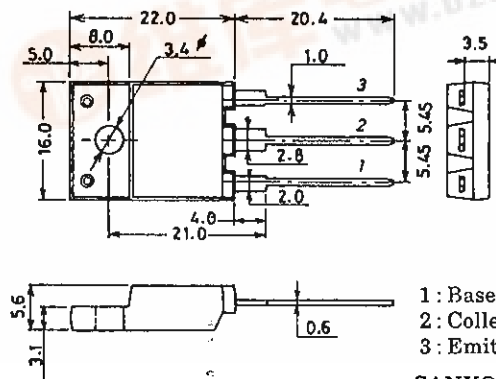
Switching Time Test Circuit

PW = 20 μs , duty $\leq 1\%$



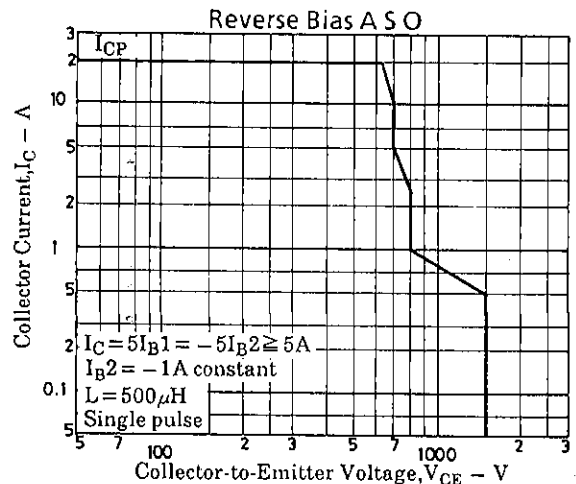
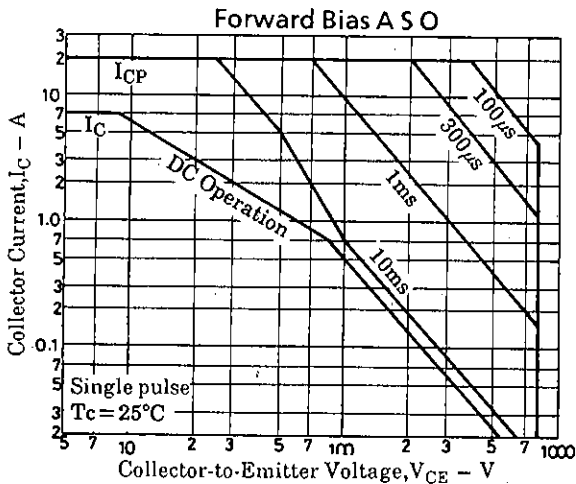
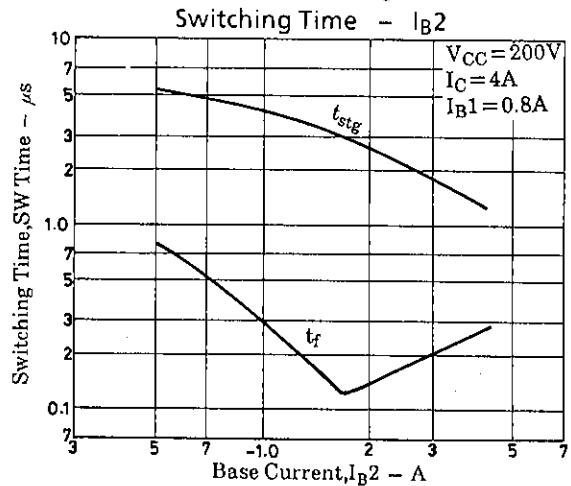
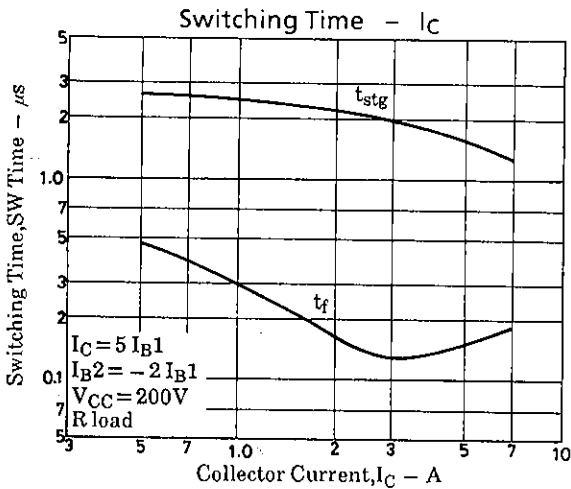
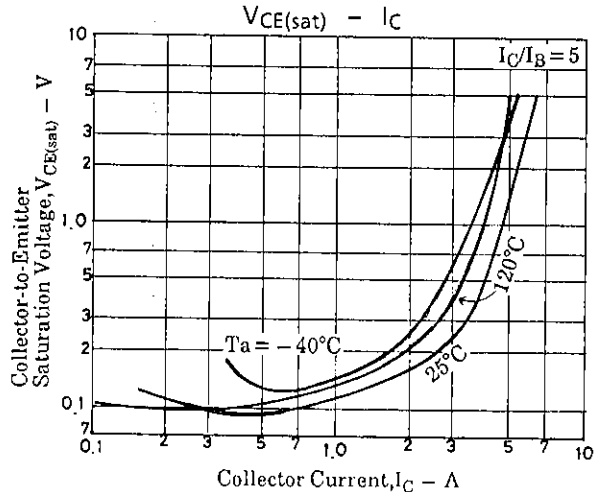
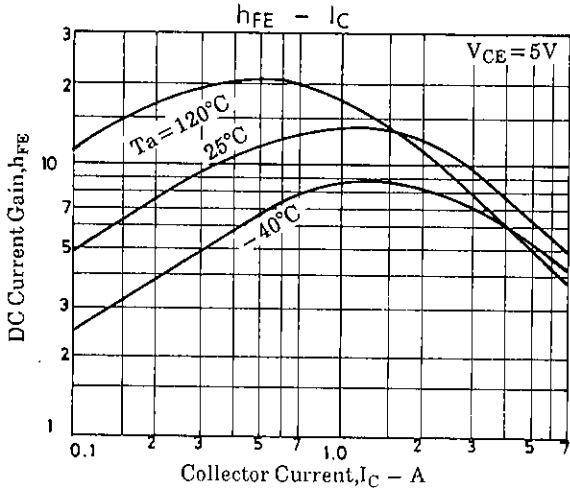
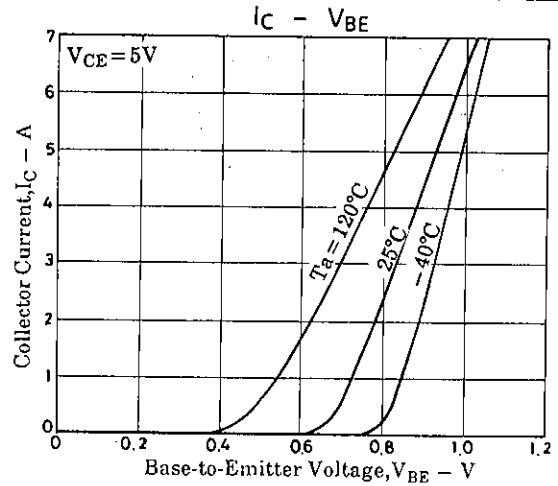
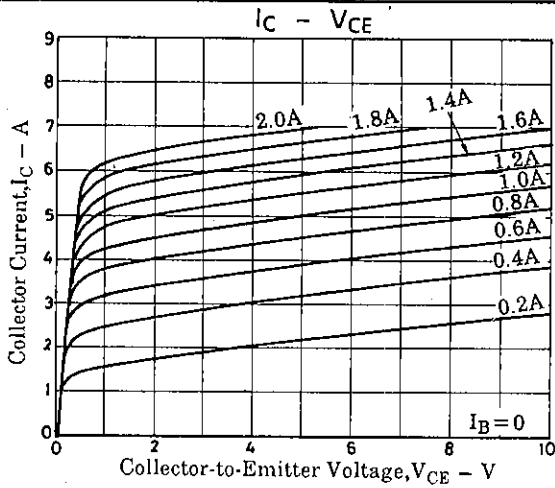
Package Dimensions 2039C

(unit: mm)

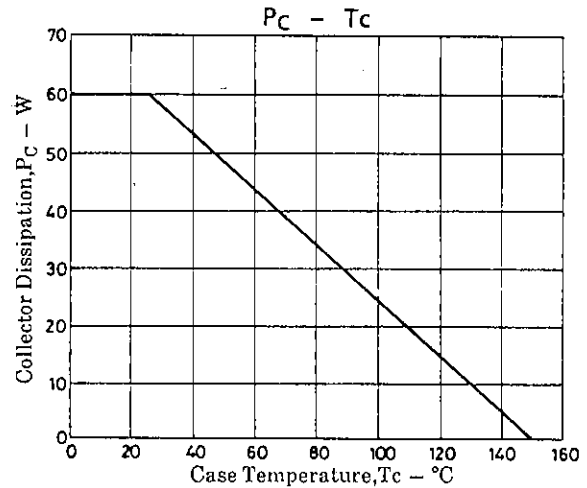
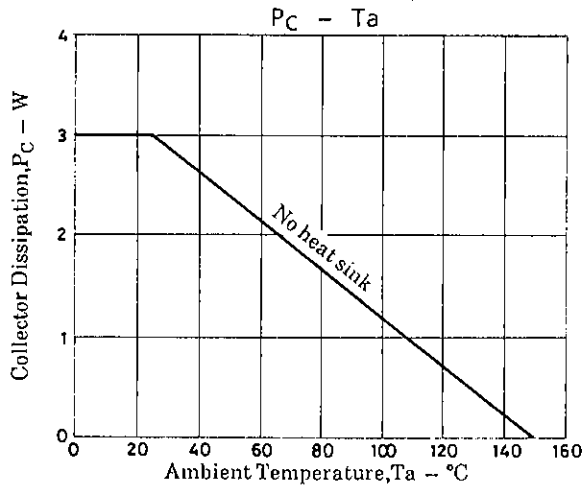


- 1: Base
 - 2: Collector
 - 3: Emitter
- SANYO: TO-3PML





2SD2251



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