

No.2963

2SC4293

NPN Triple Diffused Planar Silicon Transistor
Very High-Definition Color Display
Horizontal Deflection Output Applications

Features

- High speed ($t_f = 300\text{ns}$ max)
- High breakdown voltage ($V_{CBO} = 1500\text{V}$)
- High reliability (adoption of HVP process)
- Adoption of MBIT process
- On-chip damper diode

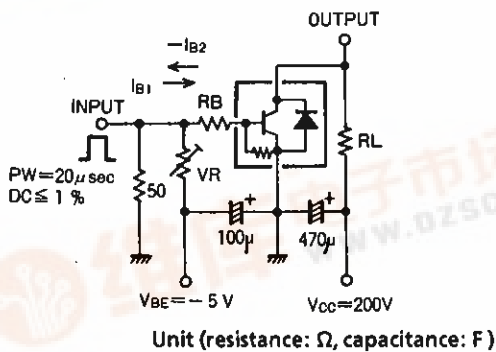
Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

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}	7	V
Collector Current	I_C	5	A
Peak Collector Current	i_{cp}	16	A
Collector Dissipation	P_C	3.0	W
$T_c = 25^\circ\text{C}$			
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

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

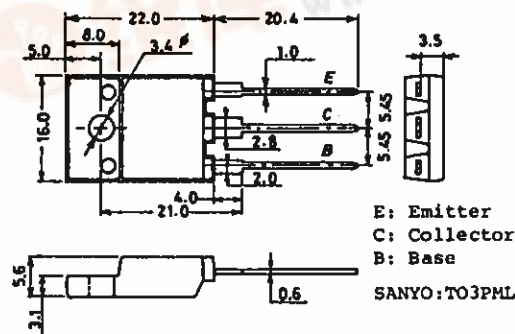
Parameter	Symbol	Test Conditions	min	typ	max	Unit
Collector Cutoff Current	I_{CES}	$V_{CE} = 1500\text{V}$			1	mA
Collector Cutoff Current	I_{CBO}	$V_{EB} = 800\text{V}$			10	μA
Collector Sustain Voltage	$V_{CEO(SUS)}$	$I_C = 100\text{mA}, I_B = 0$	800			V
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 4\text{V}$	40		130	mA
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = 4\text{A}, I_B = 1\text{A}$			5	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = 4\text{A}, I_B = 1\text{A}$			1.5	V
DC Current Gain	$h_{FE(1)}$	$V_{CE} = 5\text{V}, I_C = 1\text{A}$	8			
	$h_{FE(2)}$	$V_{CE} = 5\text{V}, I_C = 4\text{A}$	4		6	
Diode Forward Voltage	V_F	$I_{EC} = 5\text{A}$			2.0	V
Storage Time	t_{stg}	$V_{CC} = 200\text{V}, I_C = 4\text{A},$ $I_{B1} = 0.8\text{A}, I_{B2} = -1.6\text{A}$			3.0	μs
Fall Time	t_f				0.3	μs

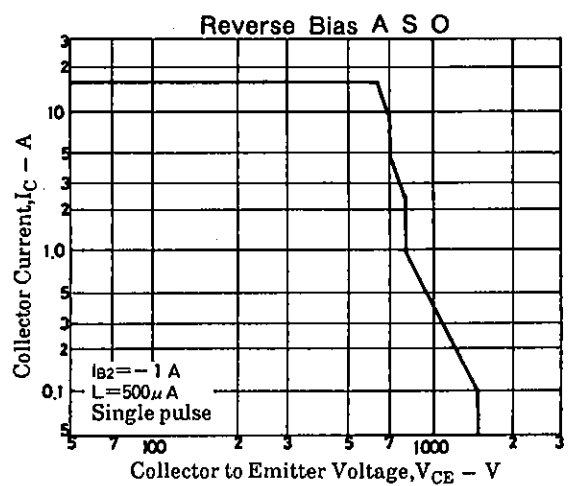
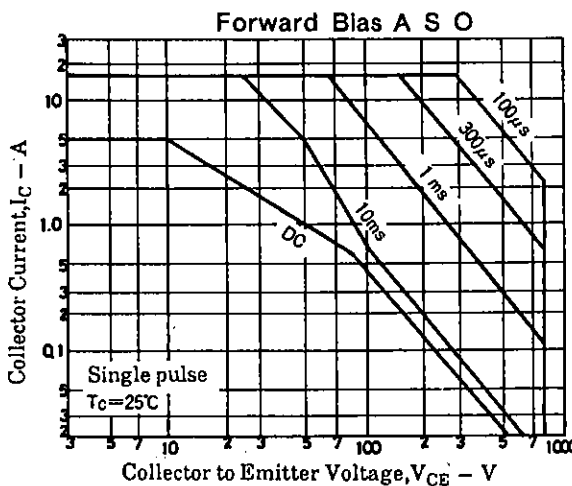
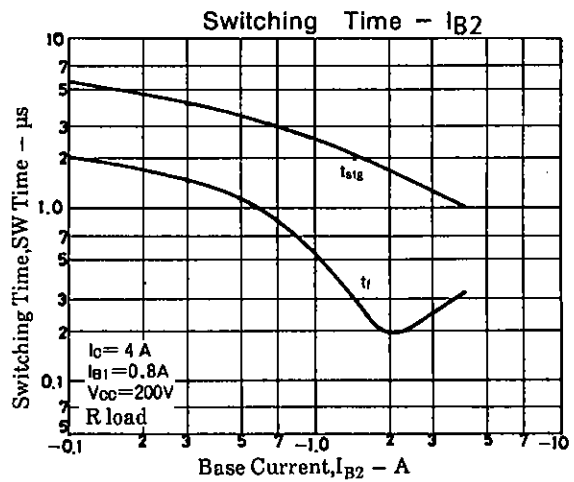
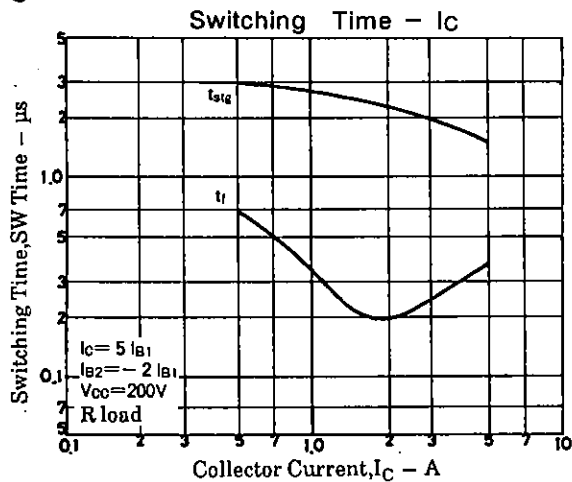
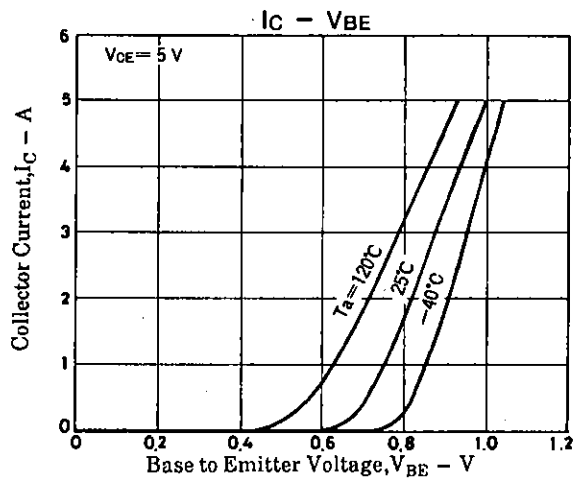
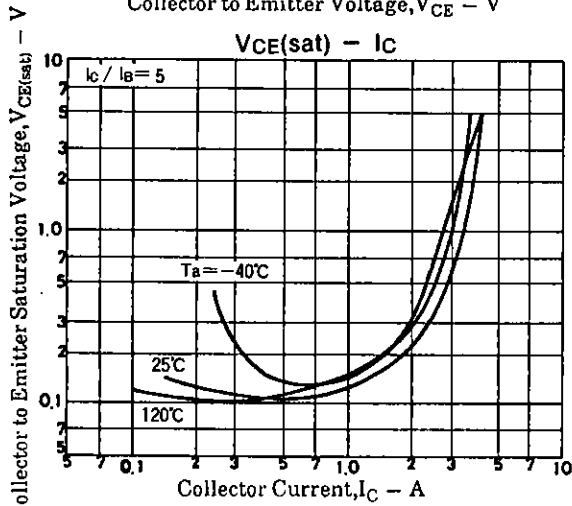
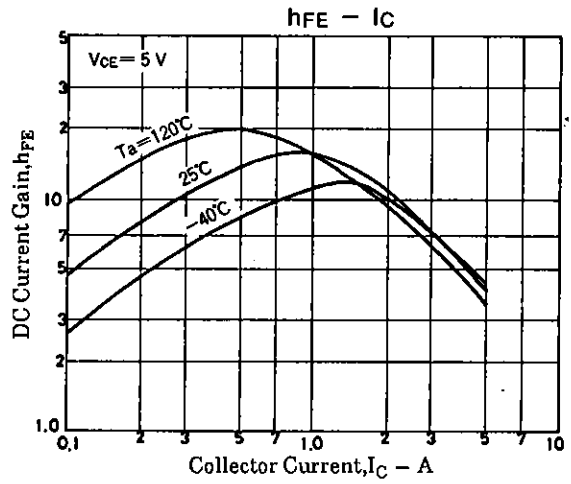
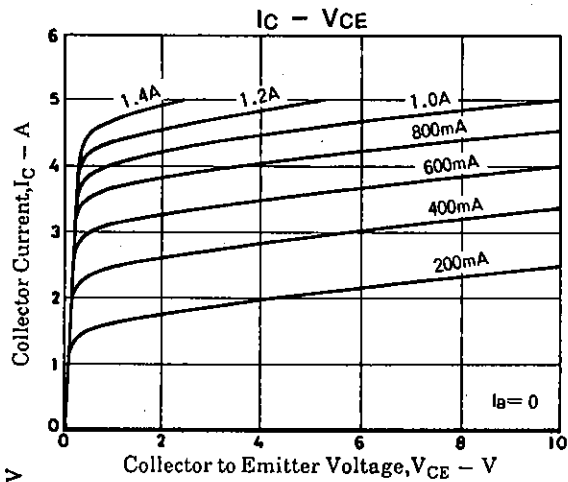
Switching Time Test Circuit



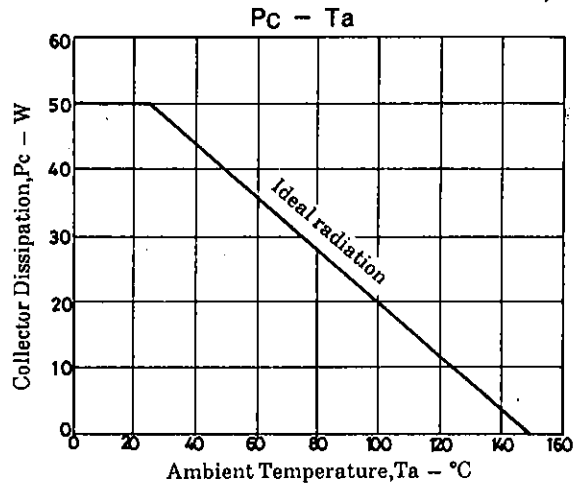
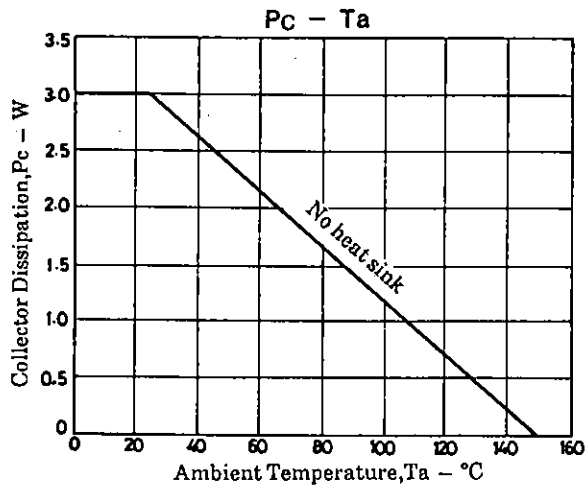
Package Dimensions 2039

(unit: mm)





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