

SANYO

No.2956

2SC4123

NPN Triple Diffused Planar Silicon Transistor

Very High-Definition Color Display
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)
- Adoption of MBIT process
- On-chip damper diode

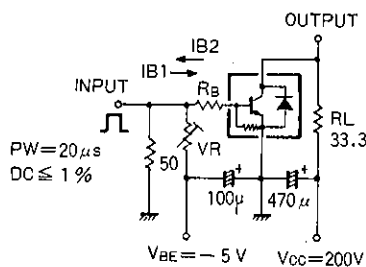
Absolute Maximum Ratings at $T_a=25^\circ\text{C}$

			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	
Peak Collector Current	i_{cp}	16	A	
Collector Dissipation	P_C	3	W	
		$T_c=25^\circ\text{C}$	60	W
Junction Temperature	T_j	150	$^\circ\text{C}$	
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$	

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

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB}=800\text{V}, I_E=0$			10	μA
Collector Cutoff Current	I_{CES}	$V_{CE}=1500\text{V}, R_{BE}=0$			1.0	mA
Collector Sustain Voltage	$V_{CEO(sus)}$	$I_C=100\text{mA}, I_B=0$	800			V
Emitter Cutoff Current	I_{EBO}	$V_{EB}=4\text{V}, I_C=0$	40		130	mA
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=5\text{A}, I_B=1.2\text{A}$			5	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C=5\text{A}, I_B=1.2\text{A}$			1.5	V
DC Current Gain	$h_{FE(1)}$	$V_{CE}=5\text{V}, I_C=1\text{A}$	8			
	$h_{FE(2)}$	$V_{CE}=5\text{V}, I_C=5\text{A}$	4.0		6.0	
Diode Forward Voltage	V_F	$I_{EC}=7\text{A}$			2.0	V
Storage Time	t_{stg}	$I_C=5\text{A}, I_{B1}=1\text{A}$			3.0	μs
Fall Time	t_f	$I_{B2}=-2\text{A}$		0.1	0.2	μs

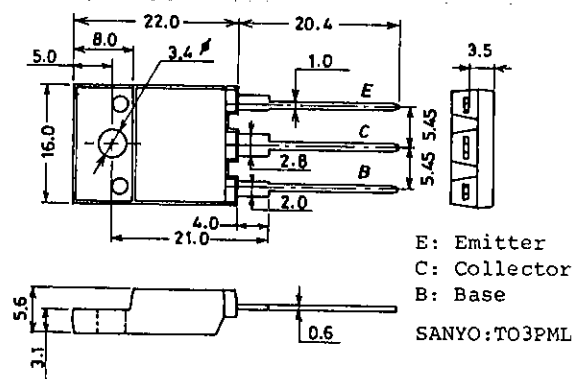
Switching Time Test Circuit



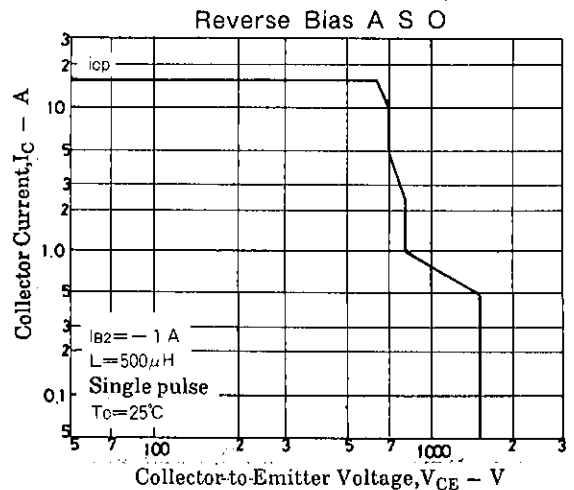
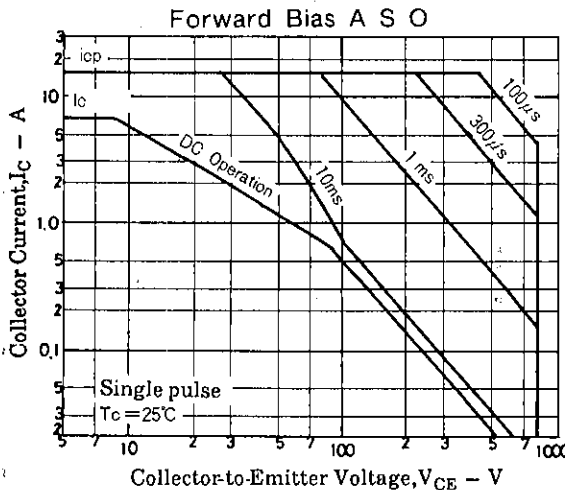
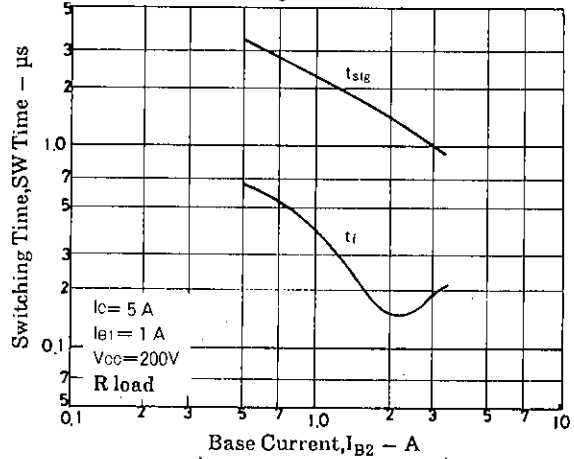
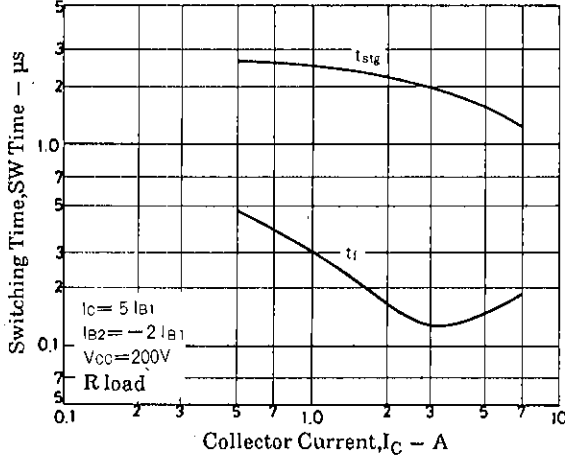
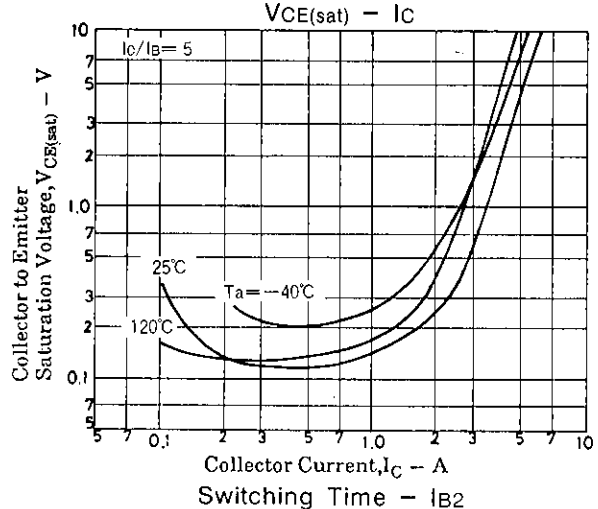
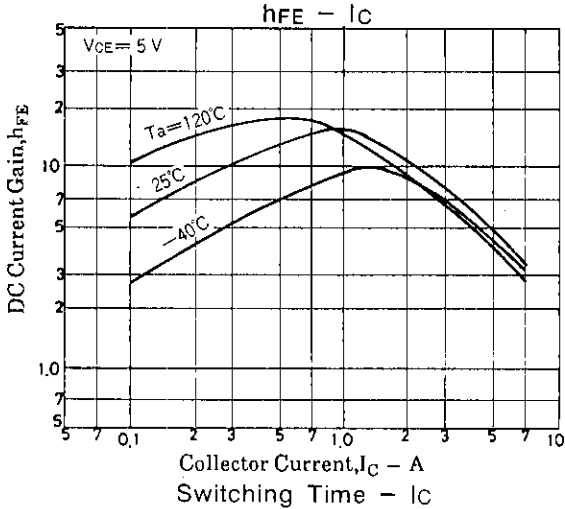
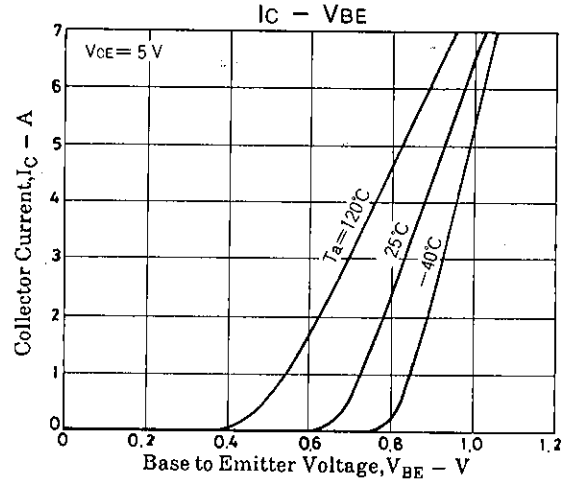
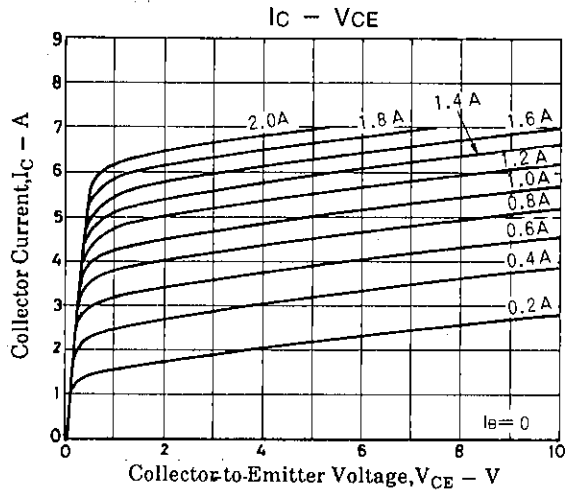
Unit (resistance:Ω, capacitance:F)

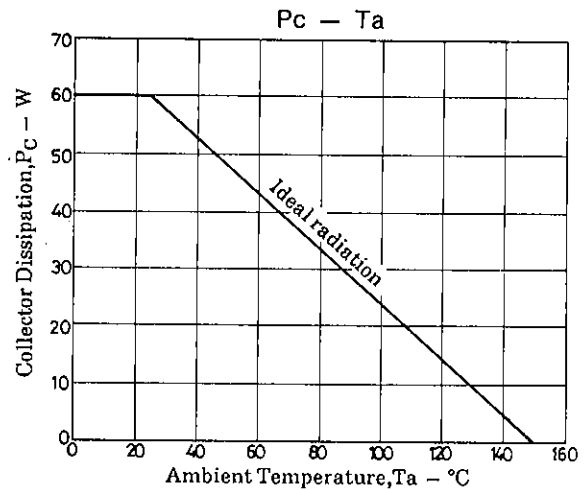
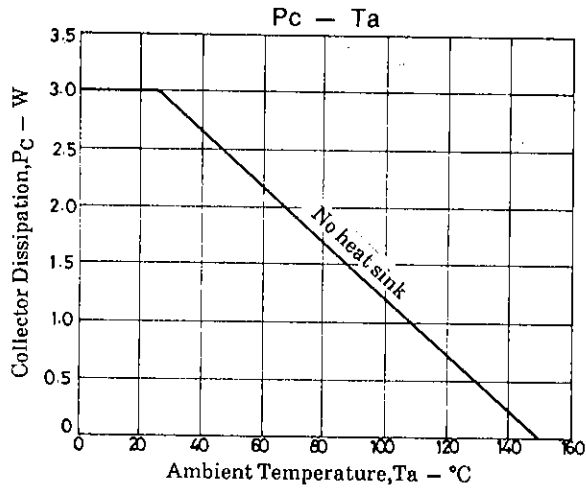
Package Dimensions 2039

(unit: mm)



E: Emitter
C: Collector
B: Base
SANYO:TO3PML





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