

**SANYO**

No.5416A

**2SC5300**

NPN Triple Diffused Planar Silicon Transistor

Ultrahigh-Definition Color Display  
Horizontal Deflection Output Applications

**Features**

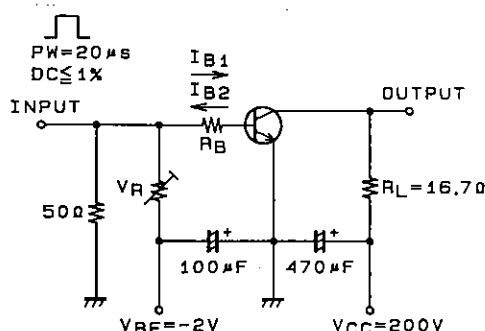
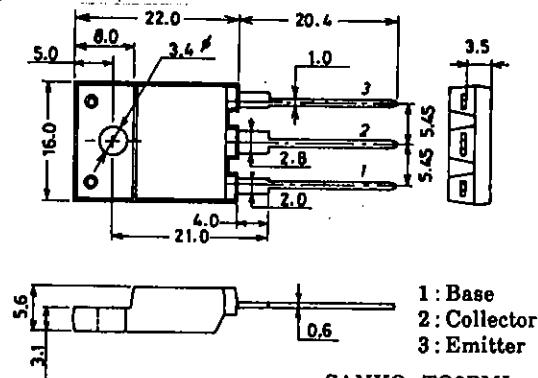
- High speed ( $t_f=100\text{ns typ.}$ ).
- High breakdown voltage ( $V_{CBO}=1500\text{V}$ ).
- High reliability (Adoption of HVP process).
- Adoption of MBIT process.

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

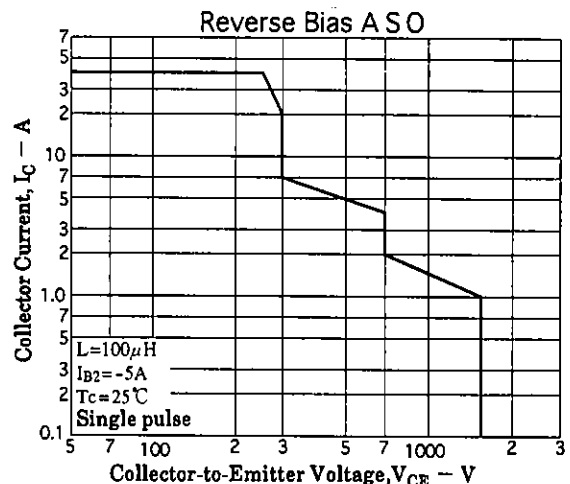
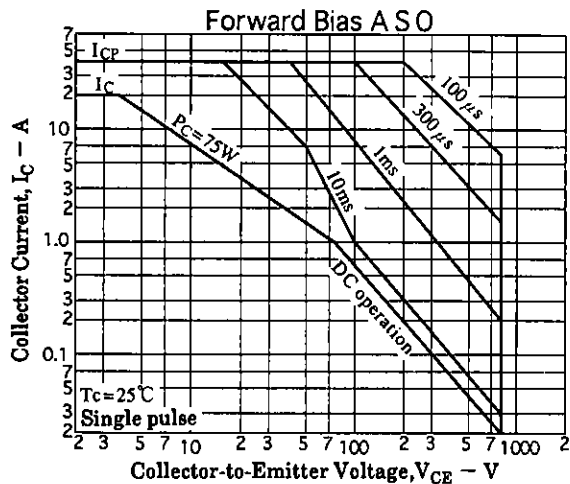
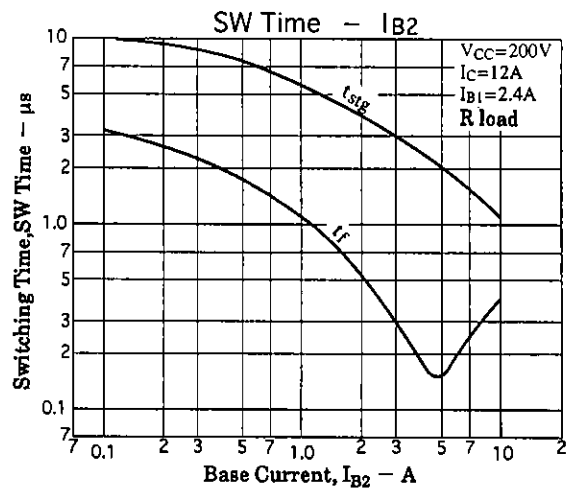
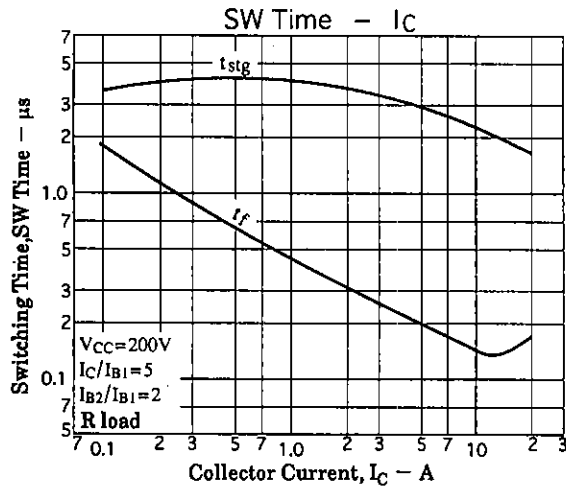
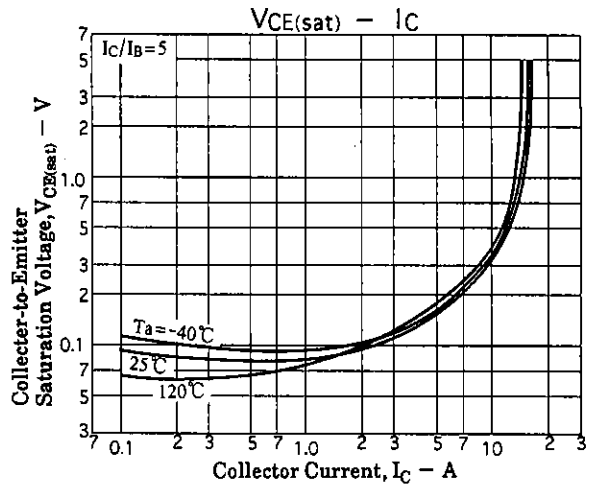
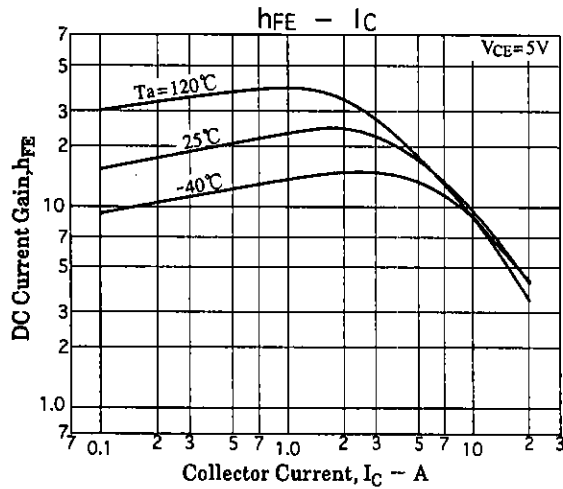
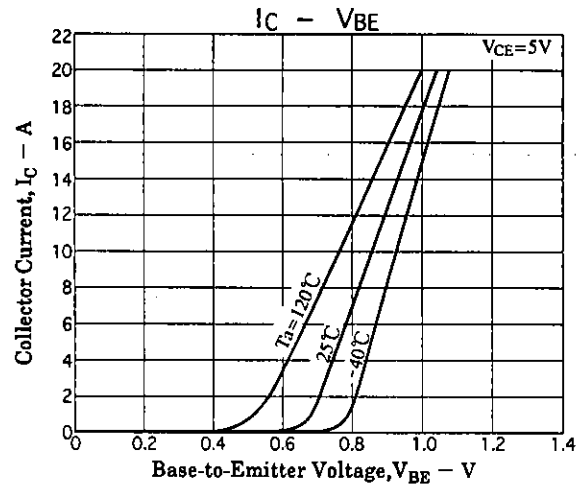
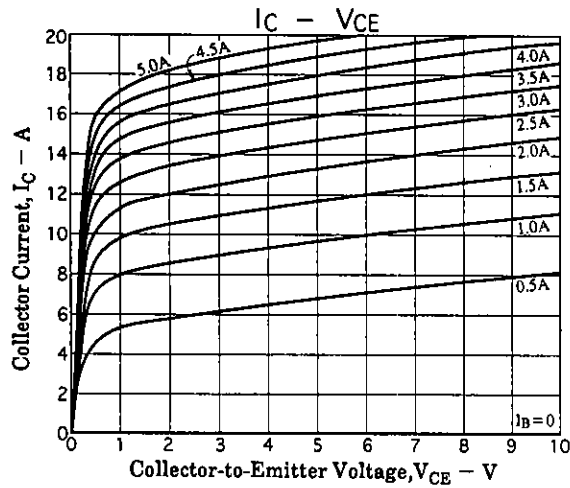
			unit
Collector-to-Base Voltage	$V_{CBO}$	1500	V
Collector-to-Emitter Voltage	$V_{CEO}$	800	V
Emitter-to-Base Voltage	$V_{EBO}$	6	V
Collector Current	$I_C$	20	A
Collector Current (Pulse)	$I_{CP}$	40	A
Collector Dissipation	$P_C$	3	W
		75	W
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

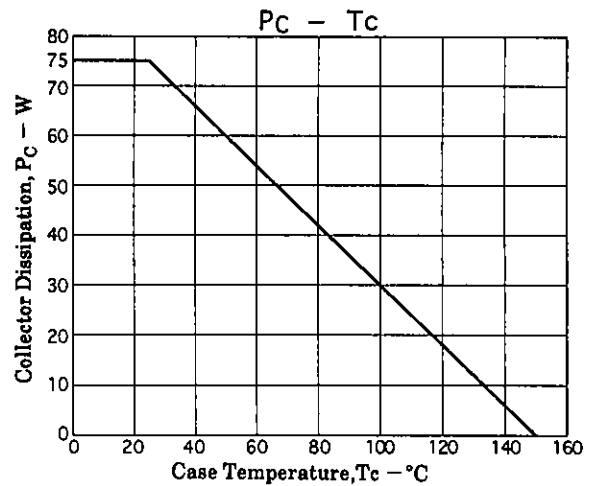
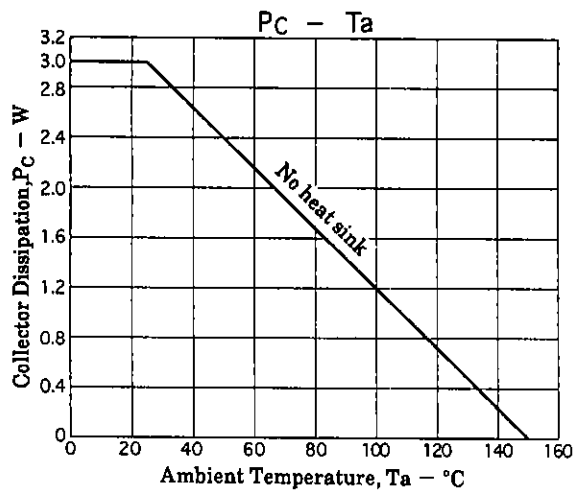
 $T_c=25^\circ\text{C}$ **Electrical Characteristics at  $T_a=25^\circ\text{C}$** 

			min	typ	max	unit
Collector Cutoff Current	$I_{CES}$	$V_{CE}=1500\text{V}, R_{BE}=0$			1.0	mA
Collector Sustain Voltage	$V_{CEO(sus)}$	$I_C=100\text{mA}, I_B=0$	800			V
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=4\text{V}, I_C=0$			1.0	mA
Collector Cutoff Current	$I_{CBO}$	$V_{CB}=800\text{V}, I_E=0$			10	$\mu\text{A}$
DC Current Gain	$h_{FE}(1)$	$V_{CE}=5\text{V}, I_C=1.0\text{A}$	20		30	
	$h_{FE}(2)$	$V_{CE}=5\text{V}, I_C=16\text{A}$	4		7	
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=16\text{A}, I_B=4\text{A}$			5	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C=16\text{A}, I_B=4\text{A}$			1.5	V
Storage Time	$t_{stg}$	$I_C=12\text{A}, I_{B1}=2.4\text{A}, I_{B2}=-4.8\text{A}$			3.0	$\mu\text{s}$
Fall Time	$t_f$	$I_C=12\text{A}, I_{B1}=2.4\text{A}, I_{B2}=-4.8\text{A}$		0.1	0.2	$\mu\text{s}$

**Switching Time Test Circuit****Package Dimensions 2039C (unit: mm)**

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