

**SANYO**

No. 1940B

**2SC3688**

NPN Triple Diffused Planar Silicon Transistor  
 VERY HIGH-DEFINITION CRT DISPLAY  
 HORIZONTAL DEFLECTION OUTPUT

**Applications**

- Very high-definition color display horizontal deflection output

**Features**

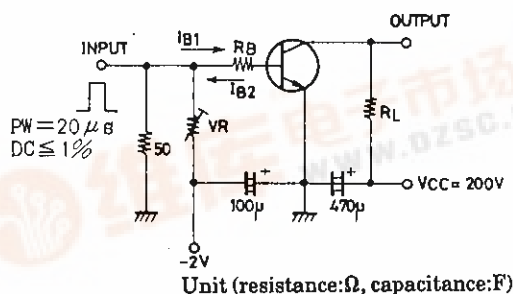
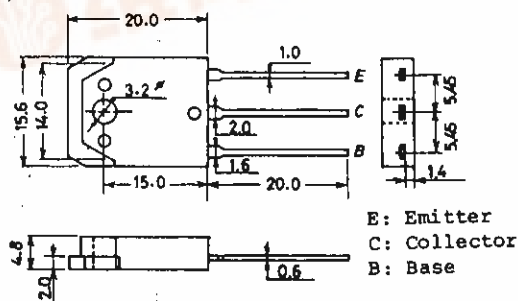
- Fast speed ( $t_f$  typ=100ns).
- High breakdown voltage ( $V_{CBO}=1500V$ ).
- High reliability (adoption of HVP process).
- Adoption of MBIT process.

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

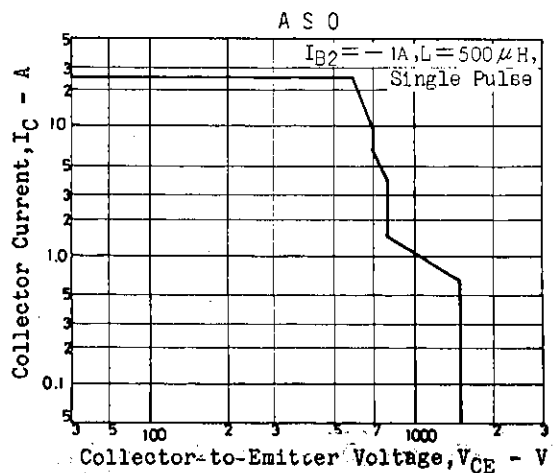
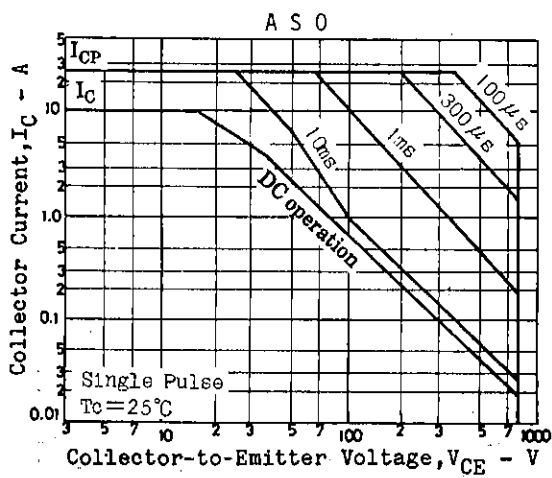
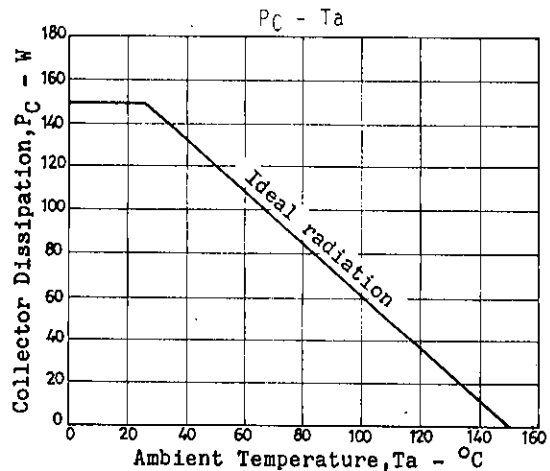
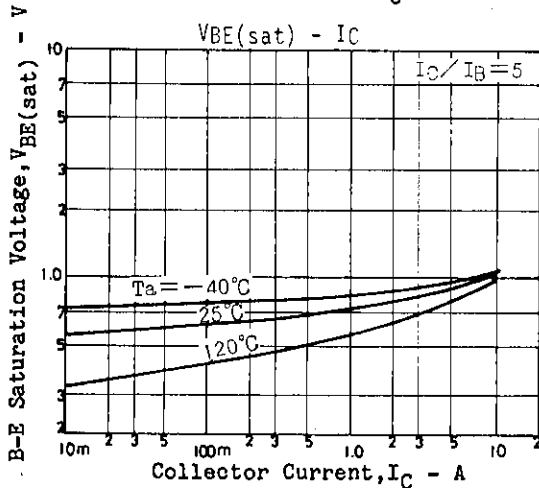
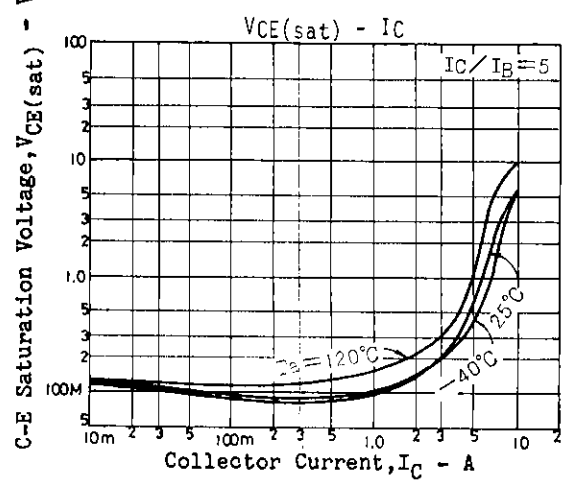
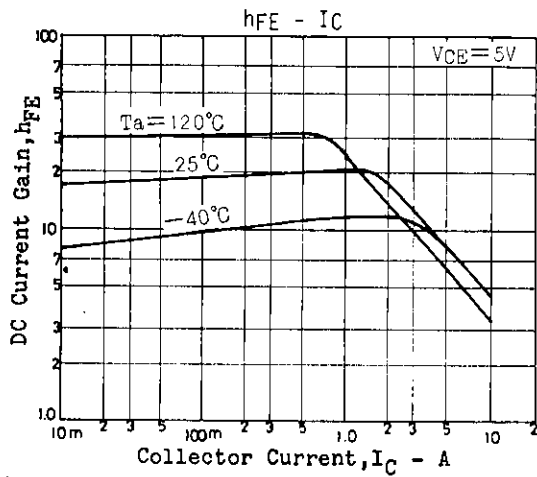
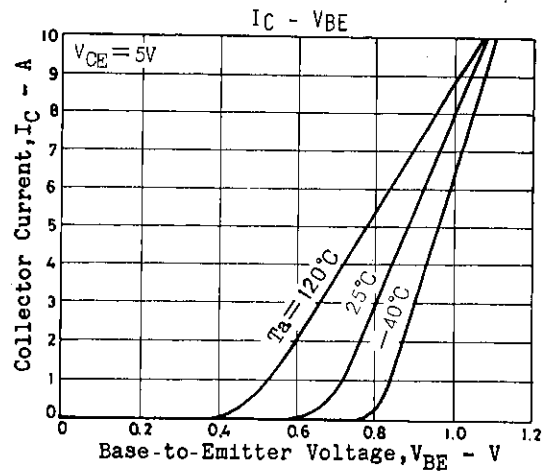
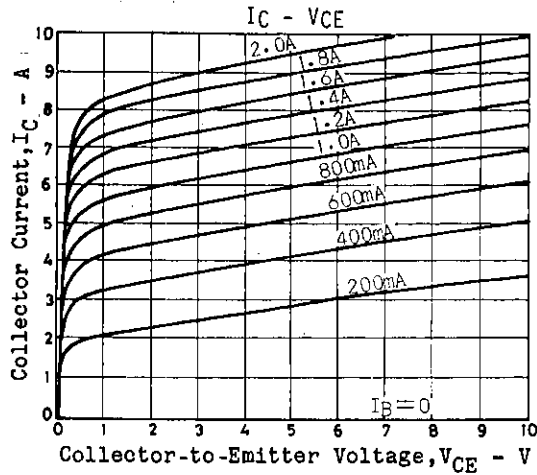
			unit
Collector-to-Base Voltage	$V_{CBO}$	1500	V
Collector-to-Emitter Voltage	$V_{CEO}$	800	V
Emitter-to-Base Voltage	$V_{EBO}$	6	V
Collector Current	$I_C$	10	A
Peak Collector Current	$i_{cp}$	25	A
Collector Dissipation	$P_C$	150	W
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature	$T_{stg}$	-55 to +150	$^\circ C$

**Electrical Characteristics at  $T_a=25^\circ C$** 

			min	typ	max	unit
Collector Cutoff Current	$I_{CES}$	$V_{CE}=1500V, R_{BE}=0$			1.0	mA
Collector Sustain Voltage	$V_{CEO(SUS)}$	$I_C=100mA, I_B=0$	800			V
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=4V, I_C=0$			1.0	mA
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=8A, I_B=2.0A$			5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=8A, I_B=2.0A$			1.5	V
DC Current Gain	$h_{FE}$	$V_{CE}=5V, I_C=1.0A$		8		
Storage Time	$t_{stg}$	$I_C=6A, I_{B1}=1.2A, I_{B2}=-2.4A$			3.0	$\mu s$
Fall Time	$t_f$	$I_C=6A, I_{B1}=1.2A, I_{B2}=-2.4A$		0.1	0.2	$\mu s$

**Switching Time Test Circuit****Package Dimensions 2022 (unit: mm)**

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