

<b>SANYO</b>	No. 1940B	<b>2SC3688</b>
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.

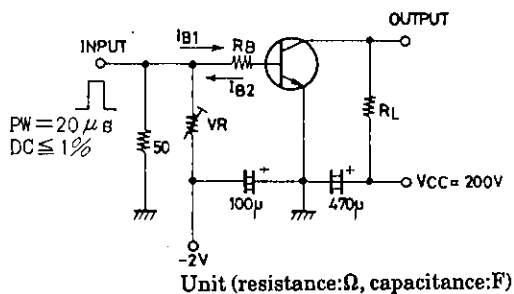
**Absolute Maximum Ratings at  $T_a=25^\circ\text{C}$**

Collector-to-Base Voltage	$V_{CBO}$	1500		unit
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	$T_c=25^\circ\text{C}$	W
Junction Temperature	$T_j$	150		$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 to +150		$^\circ\text{C}$

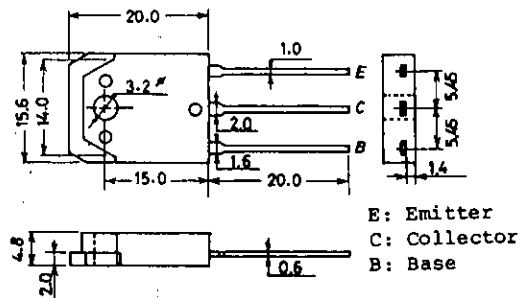
**Electrical Characteristics at  $T_a=25^\circ\text{C}$**

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

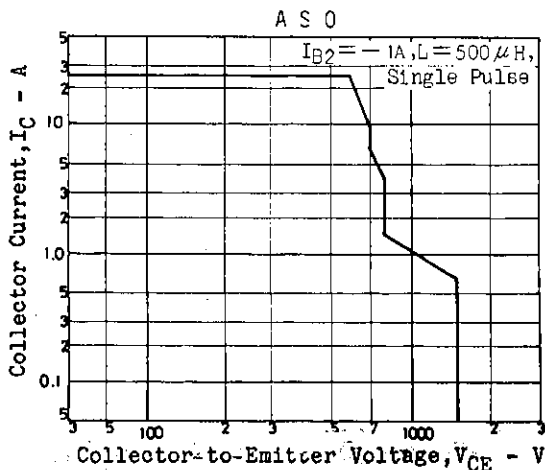
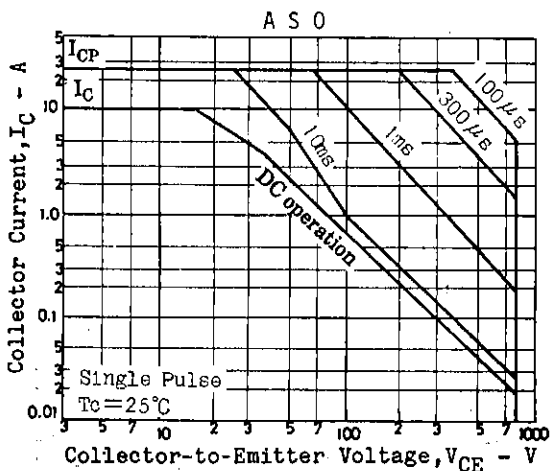
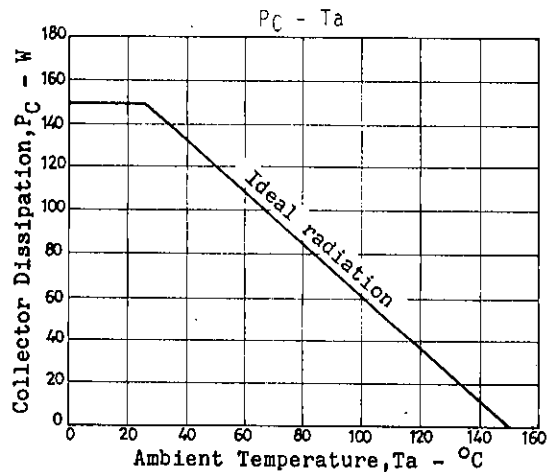
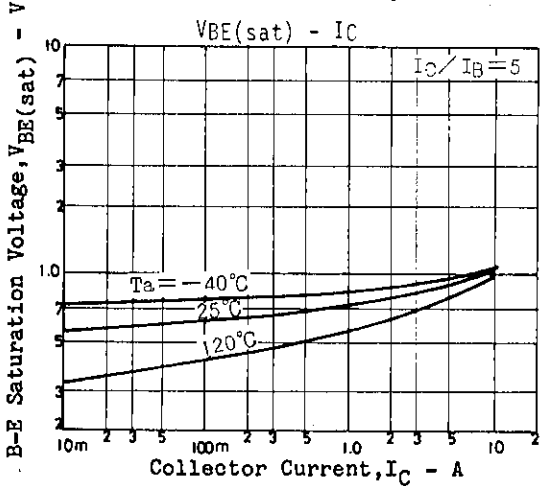
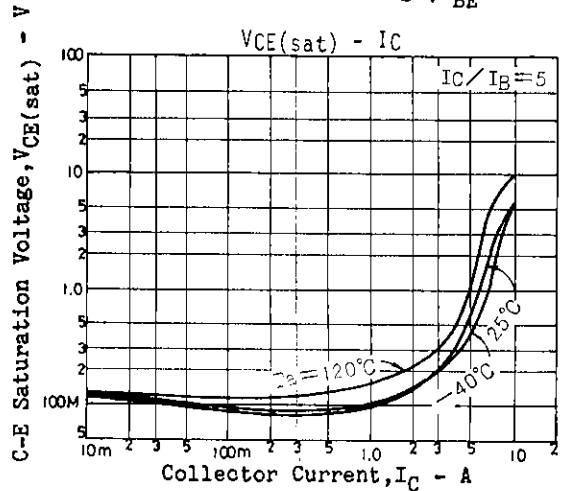
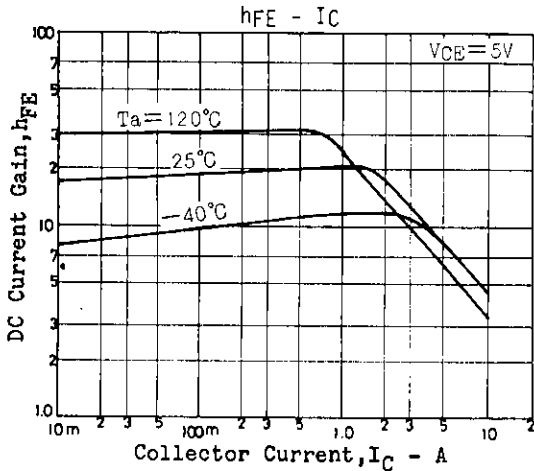
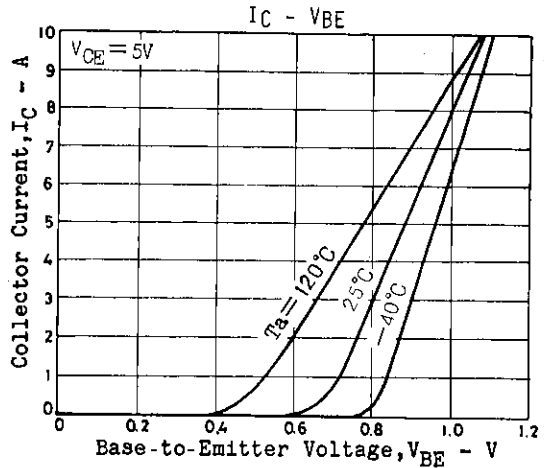
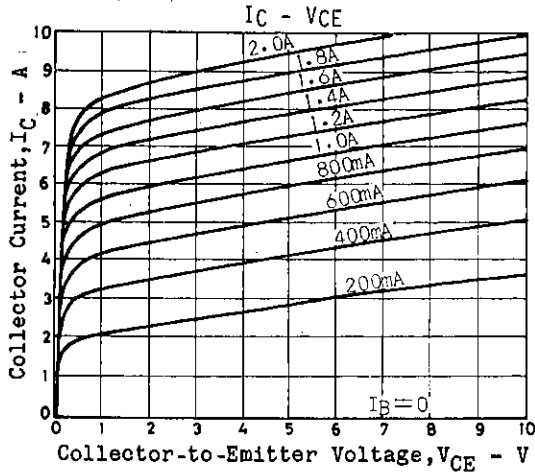
**Switching Time Test Circuit**



**Package Dimensions 2022 (unit: mm)**



SANYO: TO3PB



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