

<b>SANYO</b>	No.1938A	<b>2SC3686</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  $T_a=25^\circ C$**

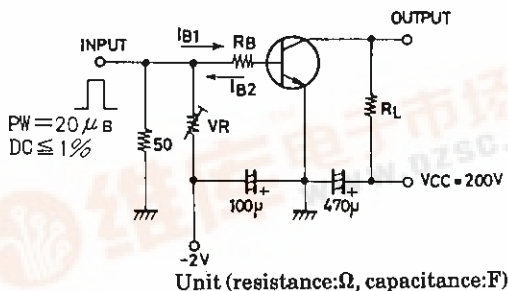
Parameter	Symbol	Value	unit
Collector-to-Base Voltage	$V_{CBO}$	1500	V
Collector-to-Emitter Voltage	$V_{CEO}$	800	V
Emitter-to-Base Voltage	$V_{EBO}$	6	V
Collector Current	$I_C$	7	A
Peak Collector Current	$i_{cp}$	16	A
Collector Dissipation	$P_C$	120	W
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature	$T_{stg}$	-55 to +150	$^\circ C$

$T_c=25^\circ C$

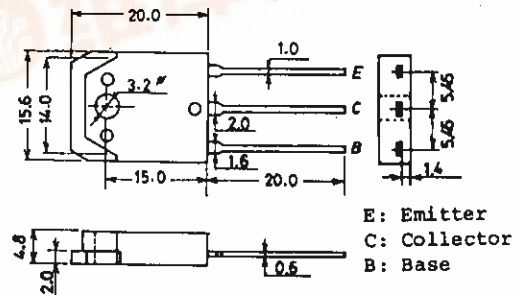
**Electrical Characteristics at  $T_a=25^\circ C$**

Parameter	Symbol	Test Conditions	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	$V_{CE(sat)}$	$I_C=5A, I_B=1.2A$			5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=5A, I_B=1.2A$			1.5	V
DC Current Gain	$h_{FE}$	$V_{CE}=5V, I_C=1.0A$		8		
Storage Time	$t_{stg}$	$I_C=4A, I_{B1}=0.8A, I_{B2}=-1.6A$			3.0	$\mu s$
Fall Time	$t_f$	$I_C=4A, I_{B1}=0.8A, I_{B2}=-1.6A$		0.1	0.2	$\mu s$

**Switching Time Test Circuit**

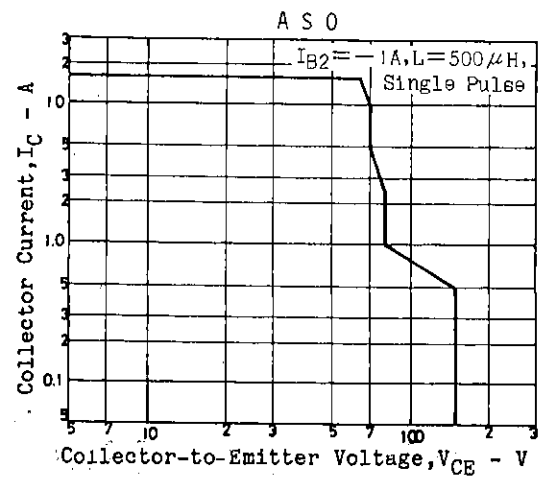
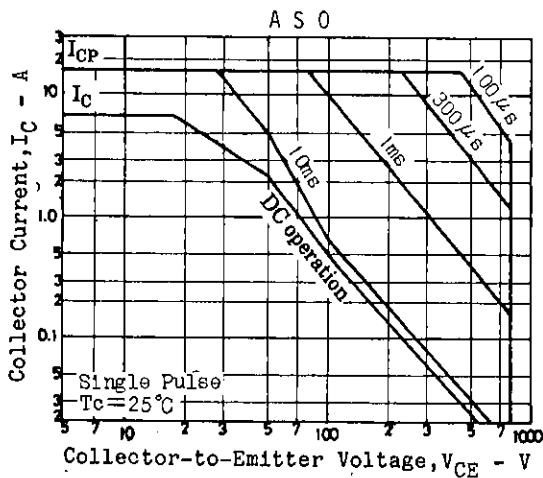
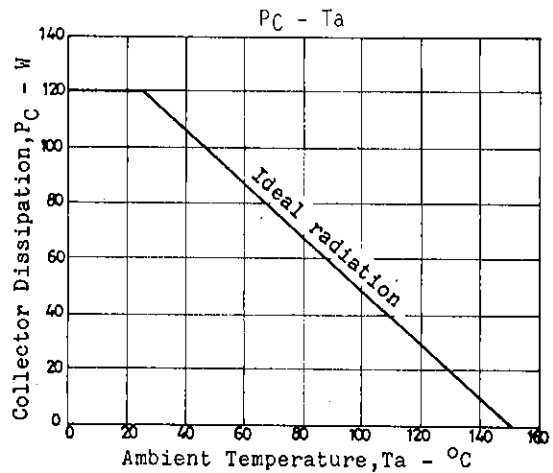
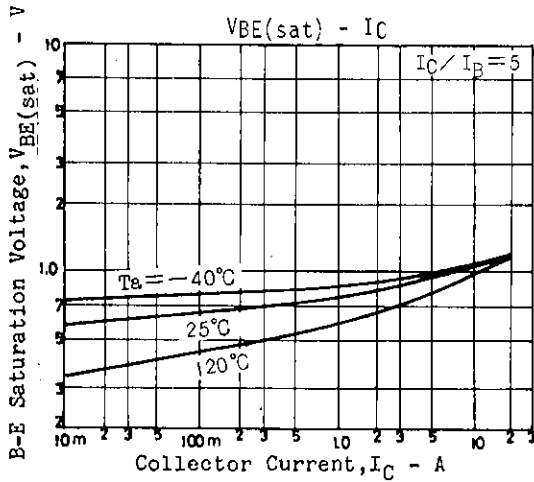
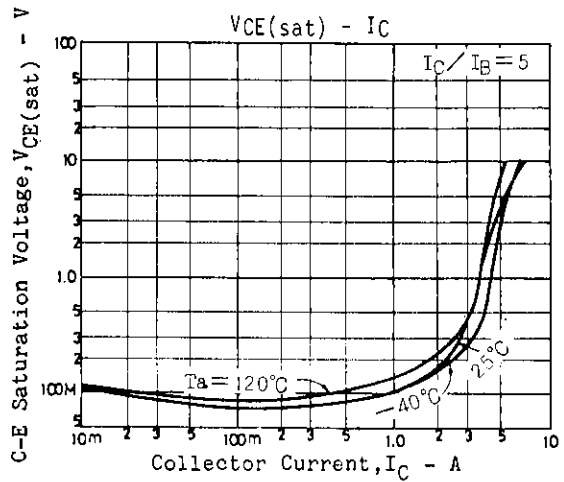
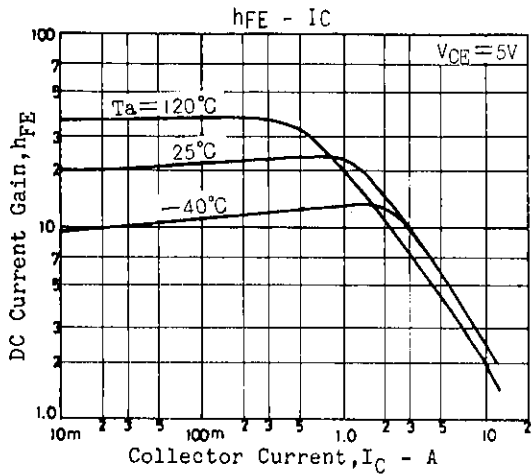
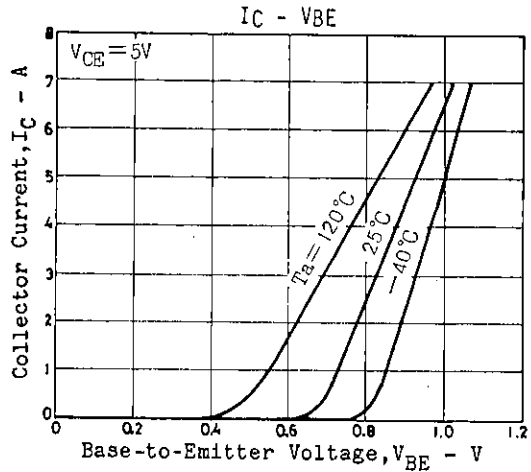
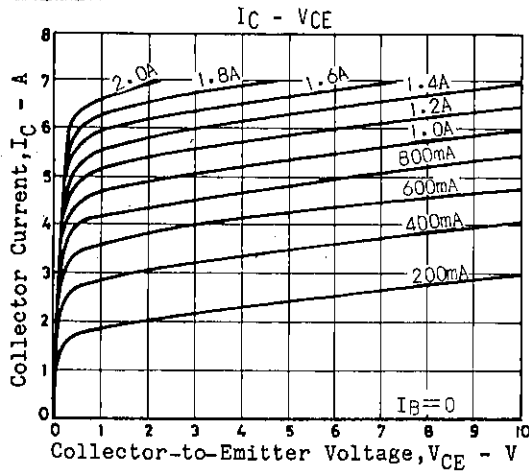


**Package Dimensions 2022 (unit: mm)**



SANYO: TO3PB





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