

<b>SANYO</b>	No.4780	<b>2SC5042</b>
		NPN Triple Diffused Planar Silicon Transistor Very High-Definition CRT Display Horizontal Deflection Output Applications

**Features**

- High speed ( $t_f=100\text{ns}$  typ).
- High reliability (HVP process).
- High breakdown voltage ( $V_{CBO}=1600\text{V}$ ).
- Adoption of MBIT process.

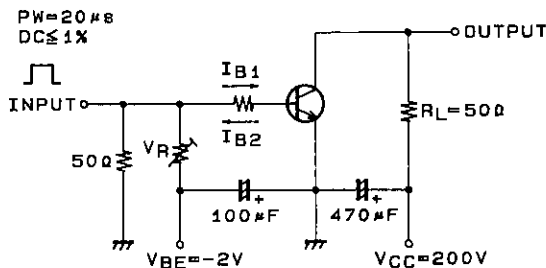
**Absolute Maximum Ratings at  $T_a=25^\circ\text{C}$**

			unit
Collector-to-Base Voltage	$V_{CBO}$	1600	V
Collector-to-Emitter Voltage	$V_{CEO}$	800	V
Emitter-to-Base Voltage	$V_{EBO}$	6	V
Collector Current	$I_C$	7	A
Collector Current (Pulse)	$I_{CP}$	16	A
Collector Dissipation	$P_C$	3.0	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  $T_a=25^\circ\text{C}$**

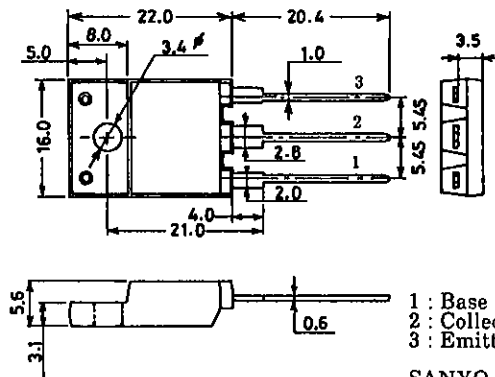
			min	typ	max	unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB}=800\text{V}, I_E=0$			10	$\mu\text{A}$
Collector Cutoff Current	$I_{CES}$	$V_{CE}=1600\text{V}, R_{BE}=0$			1.0	mA
Collector Sustain Voltage	$V_{CEO(sus)}$	$I_C=100\text{mA}, I_B=0$	800			V
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=4\text{V}, I_C=0$			1.0	mA
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=5\text{A}, I_B=1.25\text{A}$			5	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C=5\text{A}, I_B=1.25\text{A}$			1.5	V
DC Current Gain	$h_{FE(1)}$	$V_{CE}=5\text{V}, I_C=1\text{A}$	15		25	
	$h_{FE(2)}$	$V_{CE}=5\text{V}, I_C=5\text{A}$	4		7	
Storage Time	$t_{stg}$	$I_C=4\text{A}, I_{B1}=0.7\text{A}, I_{B2}=-2.0\text{A}$			2.0	$\mu\text{s}$
Fall Time	$t_f$	$I_C=4\text{A}, I_{B1}=0.7\text{A}, I_{B2}=-2.0\text{A}$		0.1	0.2	$\mu\text{s}$

**Switching Time Test Circuit**

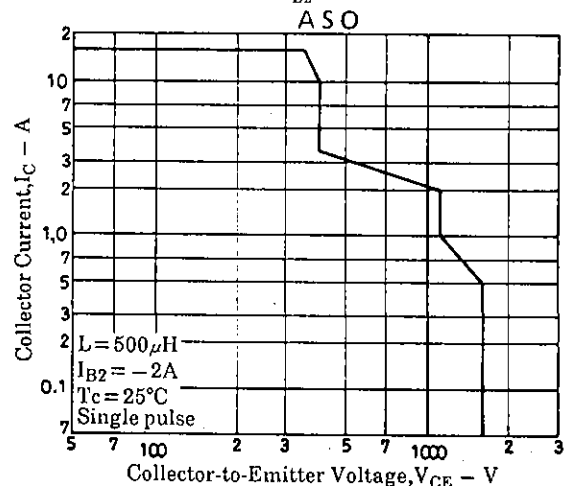
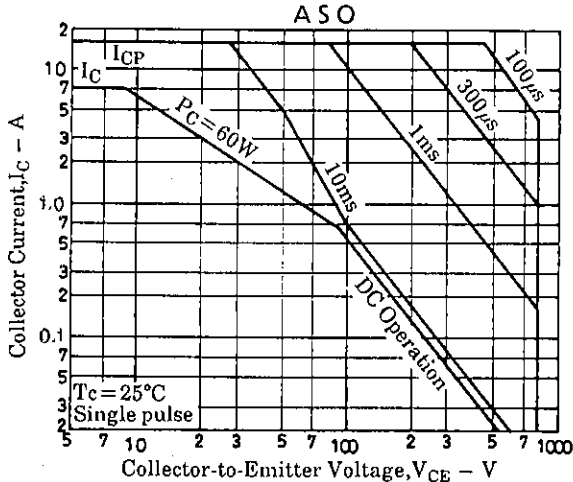
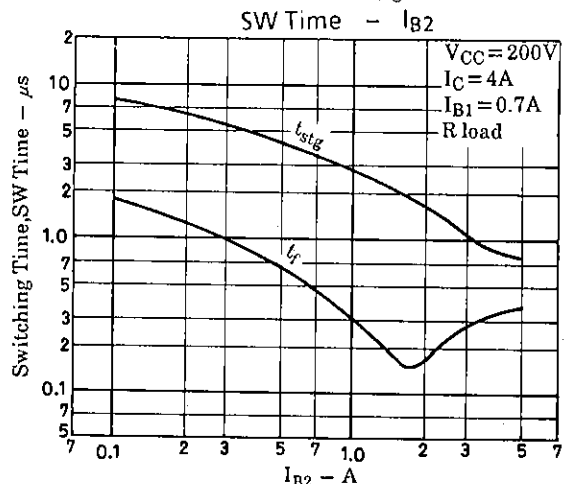
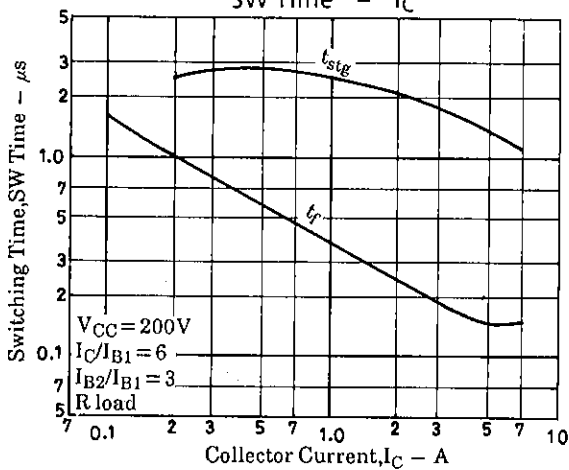
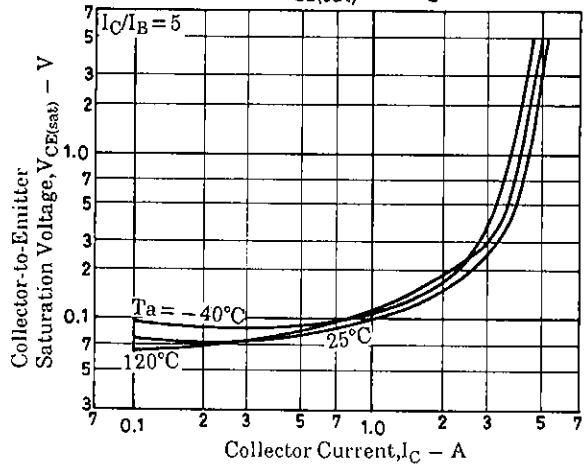
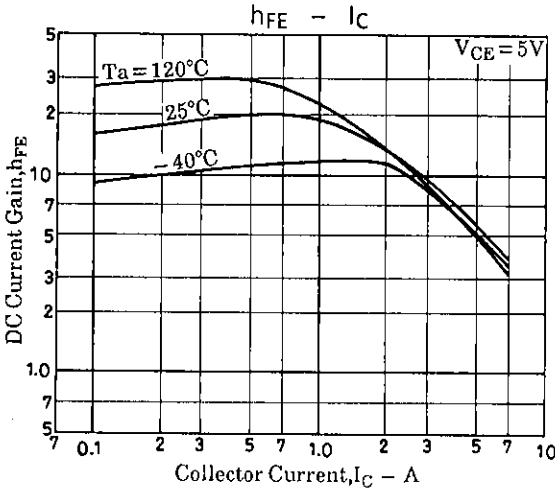
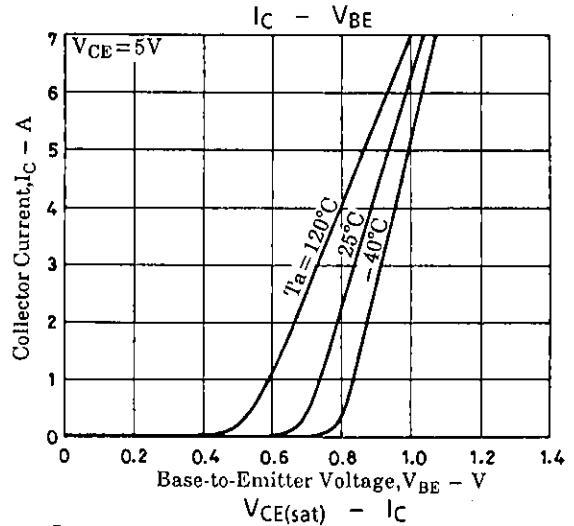
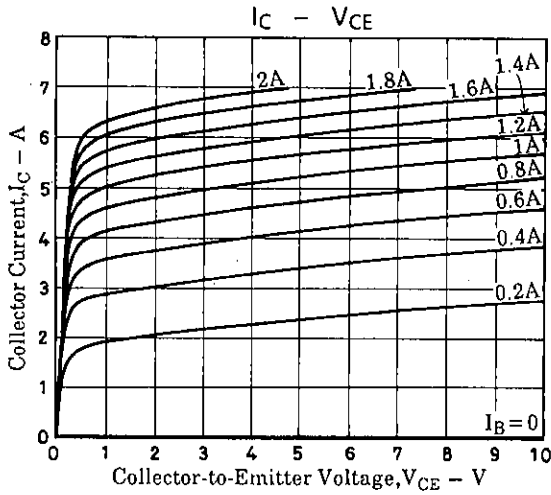


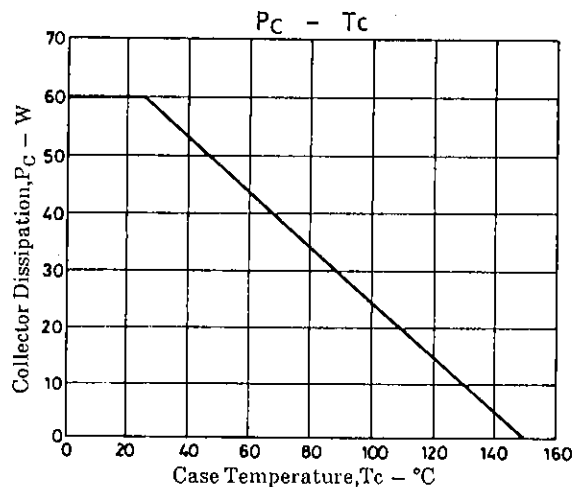
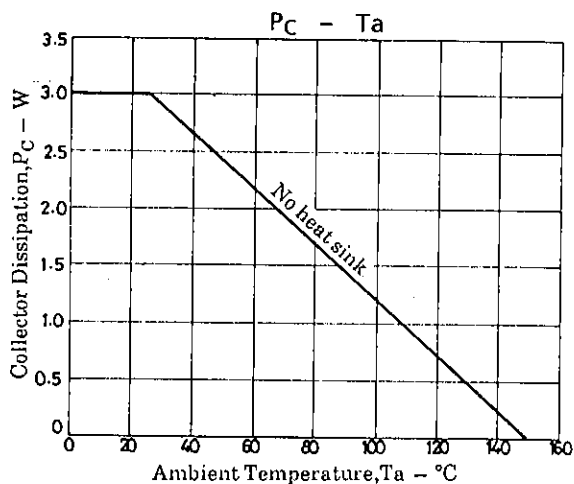
**Package Dimensions 2039C**

(unit : mm)



SANYO : TO-3PML





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