

<b>SANYO</b>	No.2441A	<b>2SC3950</b>
	PNP/NPN Epitaxial Planar Silicon Transistor High-Definition CRT Display Video Output Driver Applications	

**Applications**

- High-definition CRT display video output, wide-band amp

**Features**

- High  $f_T$ :  $f_T=2.0\text{GHz}$
- Large current capacity:  $I_C=500\text{mA}$
- Micaless type: T0126 plastic package

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

			unit
Collector-to-Base Voltage	$V_{CB0}$	30	V
Collector-to-Emitter Voltage	$V_{CE0}$	20	V
Emitter-to-Base Voltage	$V_{EB0}$	3	V
Collector Current	$I_C$	500	mA
Peak Collector Current	$i_{cp}$	1000	mA
Collector Dissipation	$P_C$	1.3	W
		5	W
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

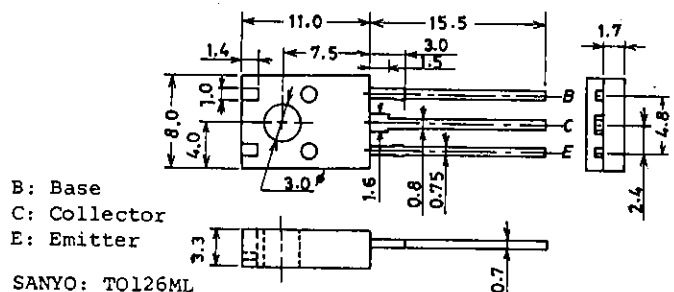
**Electrical Characteristics at  $T_a=25^\circ\text{C}$**

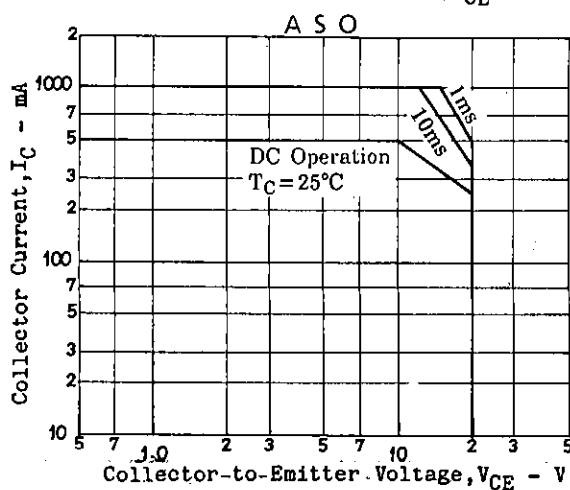
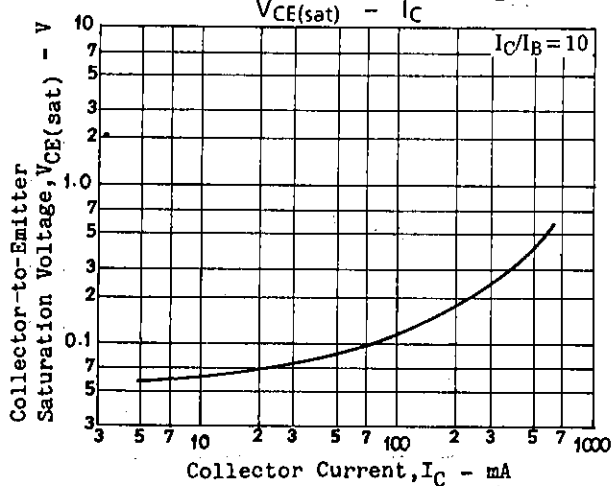
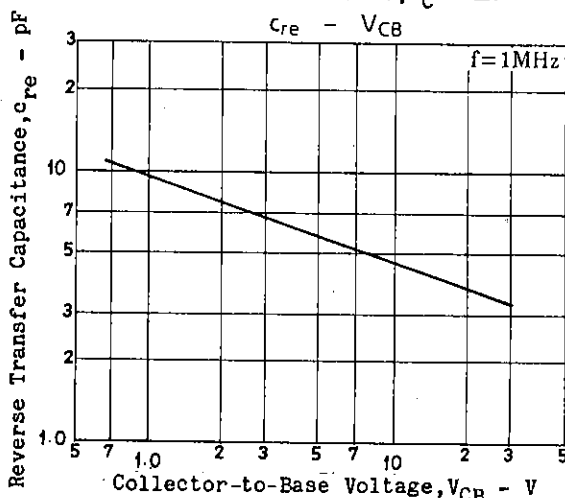
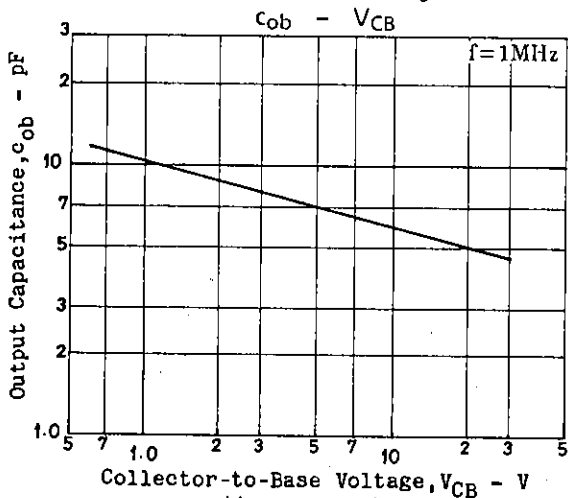
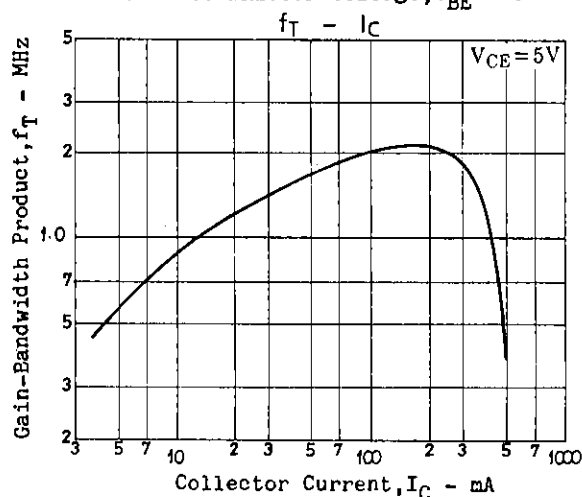
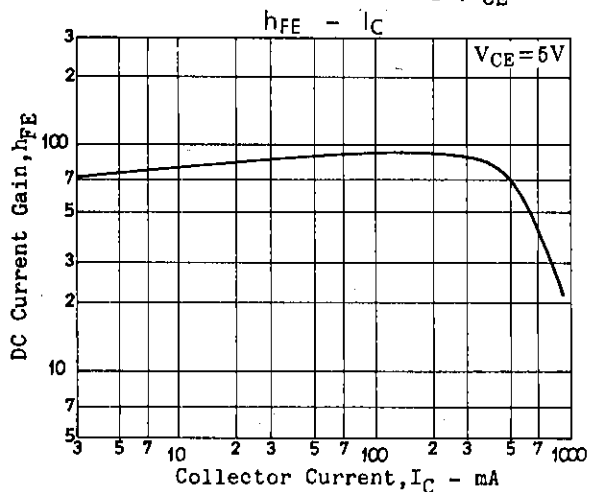
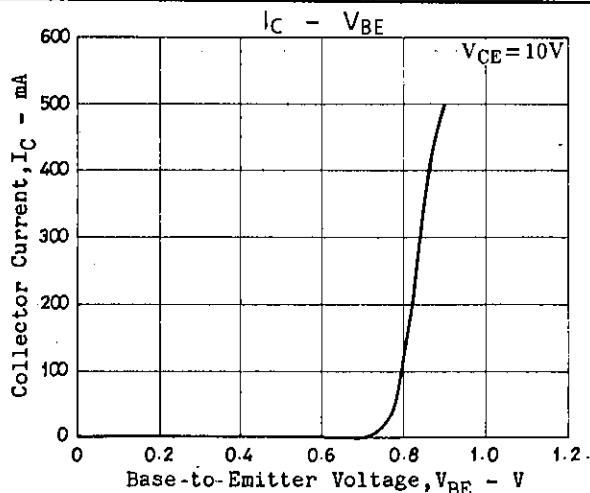
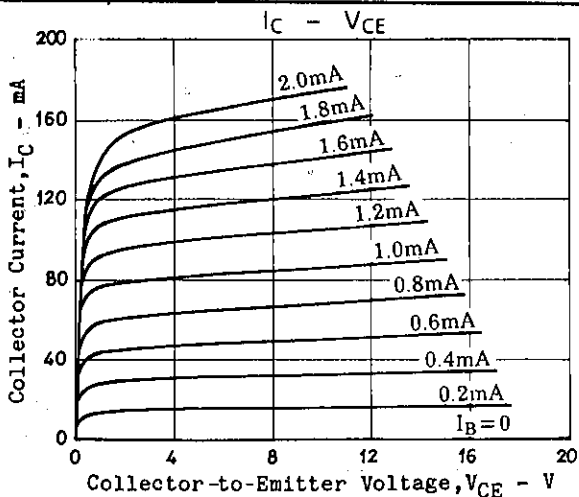
			min	typ	max	unit
Collector Cutoff Current	$I_{CB0}$	$V_{CB}=20\text{V}, I_E=0$			0.1	$\mu\text{A}$
Emitter Cutoff Current	$I_{EB0}$	$V_{EB}=2\text{V}, I_C=0$			5.0	$\mu\text{A}$
DC Current Gain	$h_{FE1}$	$V_{CE}=5\text{V}, I_C=50\text{mA}$	40*		200*	
	$h_{FE2}$	$V_{CE}=5\text{V}, I_C=500\text{mA}$	20			
Gain-Bandwidth Product	$f_T$	$V_{CE}=5\text{V}, I_C=100\text{mA}$		2.0		GHz
Output Capacitance	$c_{ob}$	$V_{CB}=10\text{V}, f=1\text{MHz}$		6.0		pF
Reverse Transfer Capacitance	$c_{re}$	$V_{CB}=10\text{V}, f=1\text{MHz}$		4.6		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=300\text{mA}, I_B=30\text{mA}$	0.3	0.8		V
E-B Saturation Voltage	$V_{BE(sat)}$	$I_C=300\text{mA}, I_B=30\text{mA}$	0.9	1.2		V

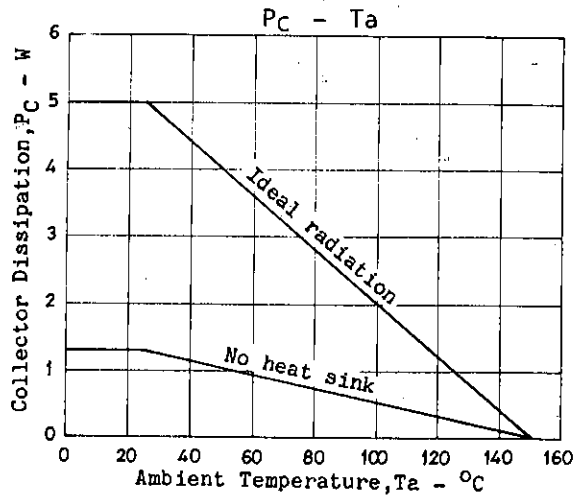
\* $h_{FE1}$ : The 2SC3950 is classified by 50mA  $h_{FE}$  as follows:

40	C	80	60	D	120	100	E	200
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**Package Dimensions 2042A**  
(unit: mm)







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