

SANYO	No.2441A	2SC3950
	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 $T_a=25^\circ\text{C}$

Collector-to-Base Voltage	V_{CB0}	30	V	unit
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	
$T_c=25^\circ\text{C}$				
Junction Temperature	T_j	5	W	
Storage Temperature	T_{stg}	150	$^\circ\text{C}$	
		-55 to +150	$^\circ\text{C}$	

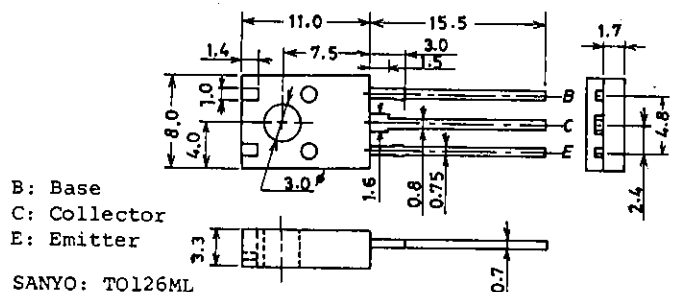
Electrical Characteristics at $T_a=25^\circ\text{C}$

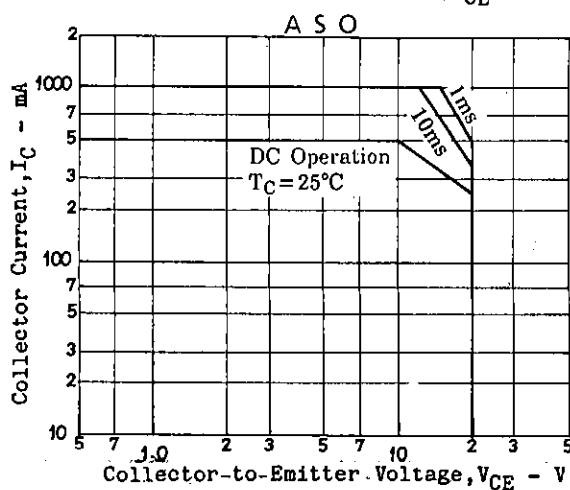
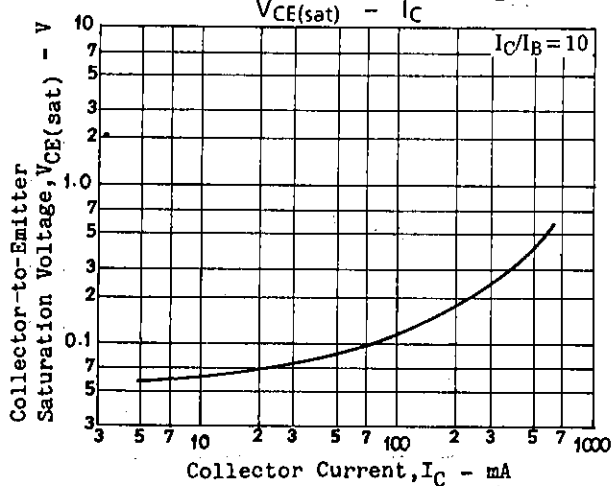
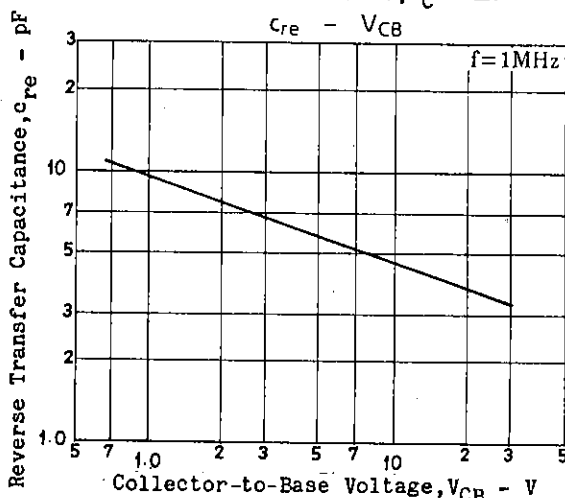
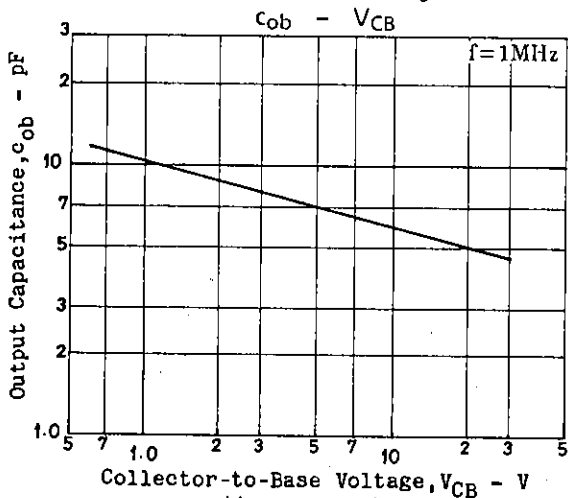
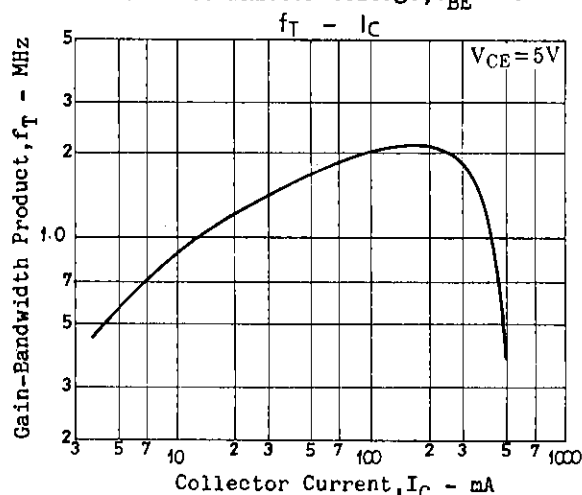
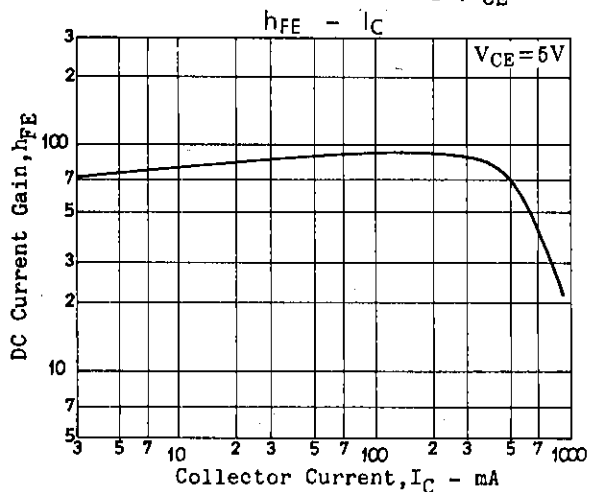
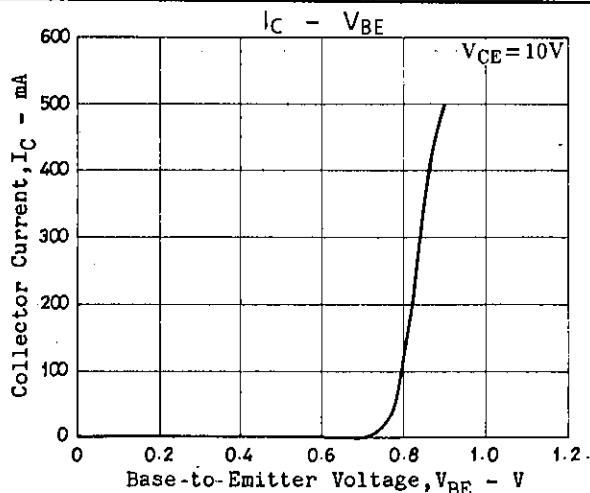
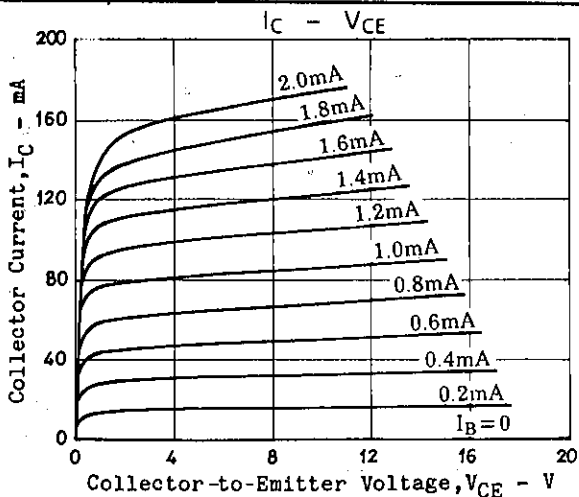
			min	typ	max	unit
Collector Cutoff Current	I_{CB0}	$V_{CB}=20\text{V}, I_E=0$			0.1	μA
Emitter Cutoff Current	I_{EB0}	$V_{EB}=2\text{V}, I_C=0$			5.0	μA
DC Current Gain	h_{FE1}	$V_{CE}=5\text{V}, I_C=50\text{mA}$	40*		200*	
	h_{FE2}	$V_{CE}=5\text{V}, I_C=500\text{mA}$	20			
Gain-Bandwidth Product	f_T	$V_{CE}=5\text{V}, I_C=100\text{mA}$		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

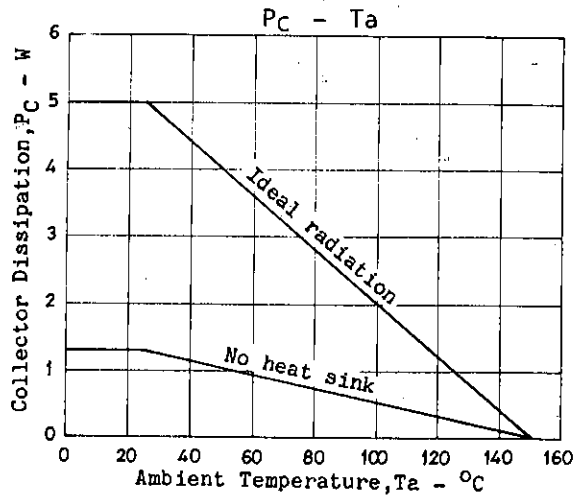
* h_{FE1} : The 2SC3950 is classified by 50mA h_{FE} as follows:

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







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