

**SANYO****2SC3950****High-Definition CRT Display  
Video Output Applications****Applications**

- High-definition CRT display video output, wide-band amplifier.

**Features**

- High  $f_T$  :  $f_T=2.0\text{GHz}$ .
- Large current capacity :  $I_C=500\text{mA}$ .
- Micaless type : TO-126 plastic package.

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	$V_{CBO}$		30	V
Collector-to-Emitter Voltage	$V_{CEO}$		20	V
Emitter-to-Base Voltage	$V_{EBO}$		3	V
Collector Current	$I_C$		500	mA
Collector Current (Pulse)	$I_{CP}$		1000	mA
Collector Dissipation	$P_C$		1.3	W
		$T_c=25^\circ\text{C}$	5	W
Junction Temperature	$T_j$		150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	$I_{CBO}$	$V_{CB}=20\text{V}$ , $I_E=0$			0.1	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=2\text{V}$ , $I_C=0$			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

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

40 C 80 60 D 120 100 E 200

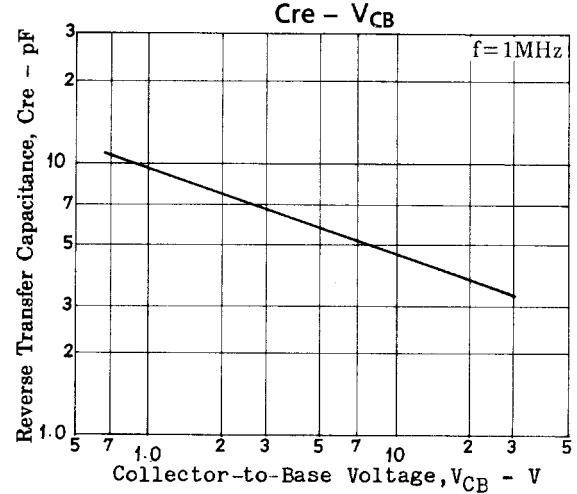
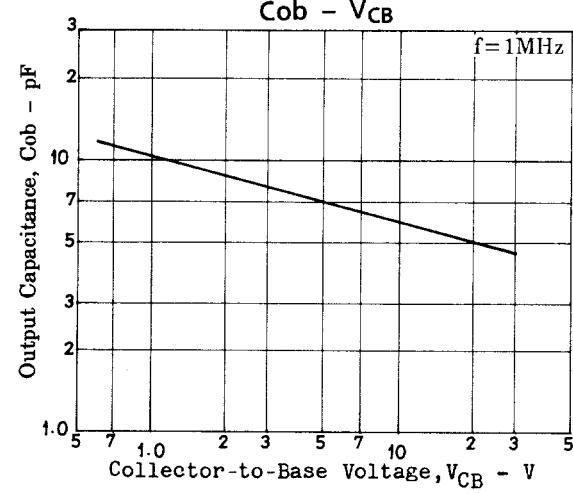
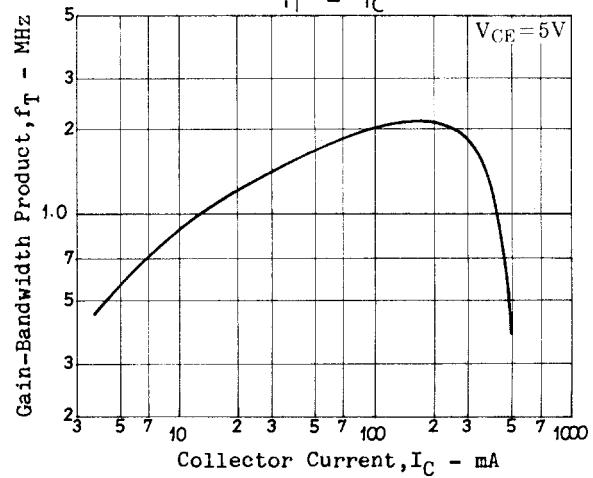
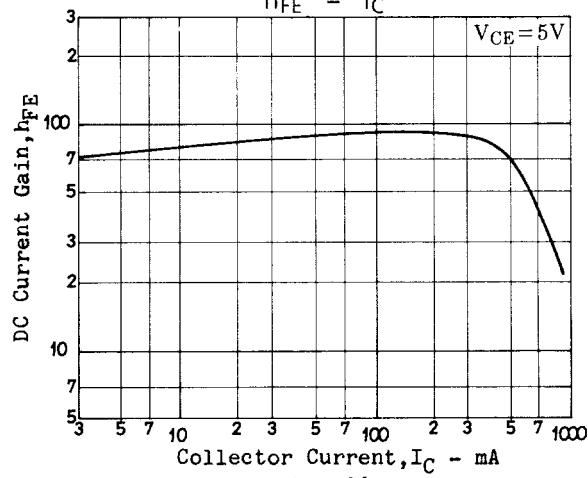
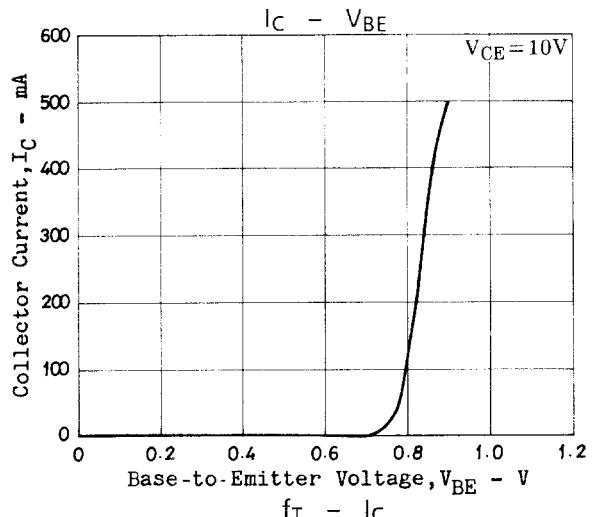
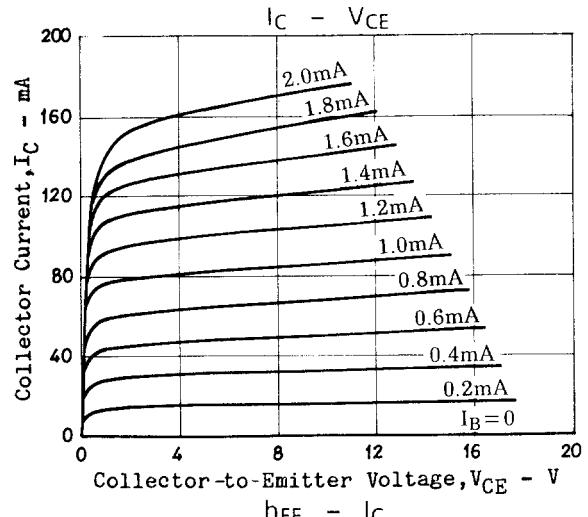
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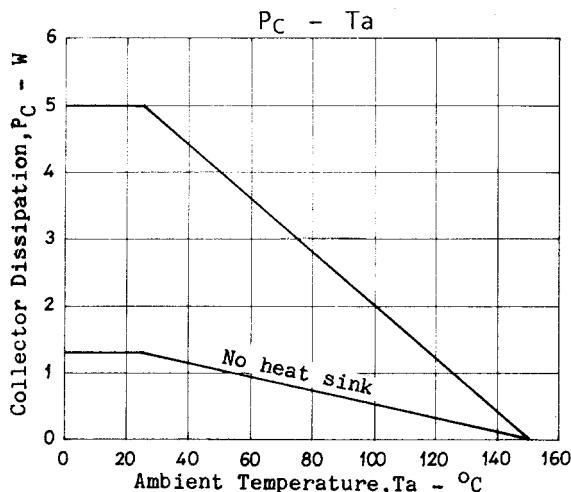
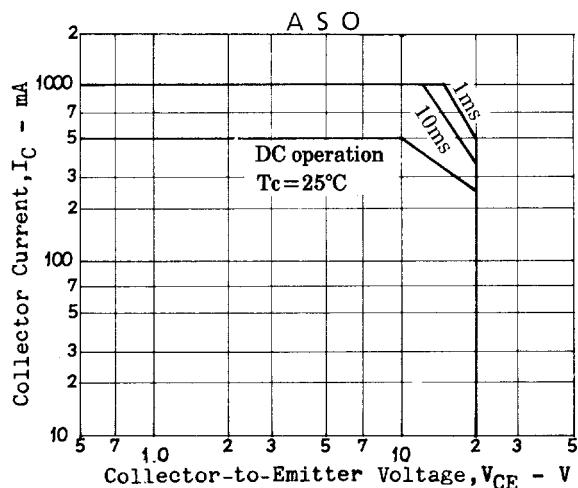
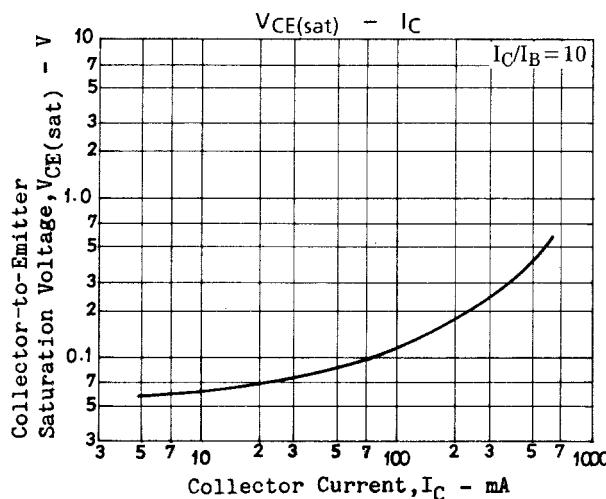
**SANYO Electric Co.,Ltd. Semiconductor Bussiness Headquaters**

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# 2SC3950

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=300\text{mA}, I_B=30\text{mA}$		0.3	0.8	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=300\text{mA}, I_B=30\text{mA}$		0.9	1.2	V





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