PNP/NPN Epitaxial Planar Silicon Transistor

2SC3950



# High-Definition CRT Display Video Output Applications

### Applications

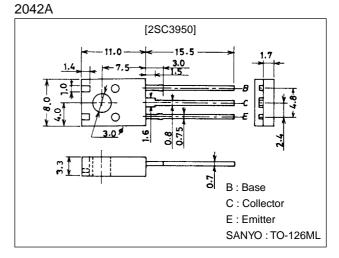
· High-definition CRT display video output, wide-band amplifier.

#### **Features**

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

## **Package Dimensions**

unit:mm



## **Specifications**

#### Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V <sub>CBO</sub>		30	V
Collector-to-Emitter Voltage	VCEO		20	V
Emitter-to-Base Voltage	VEBO		3	V
Collector Current	IC		500	mA
Collector Current (Pulse)	I <sub>CP</sub>		1000	mA
Collector Dissipation	PC		1.3	W
		Tc=25°C	5	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

#### **Electrical Characteristics at Ta = 25°C**

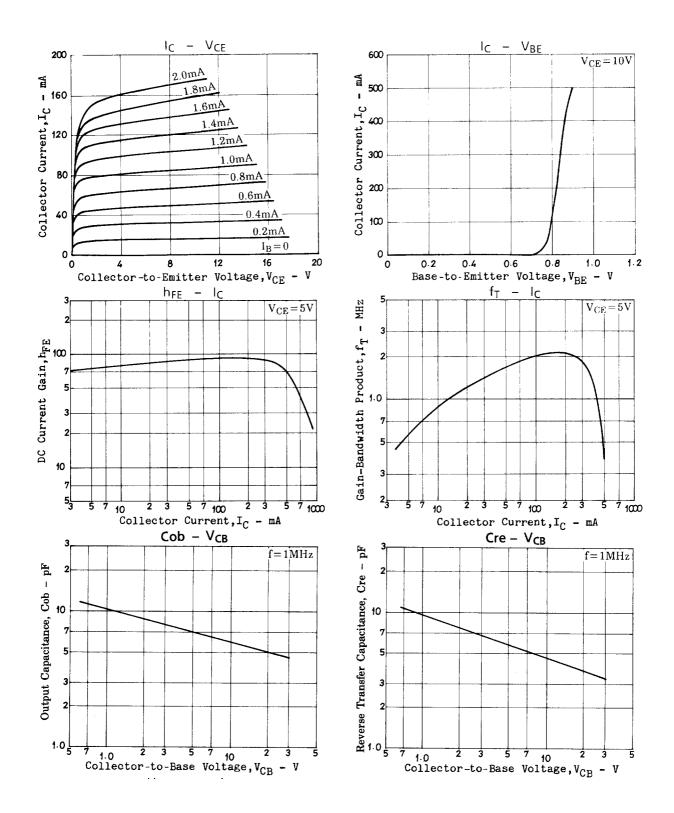
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I <sub>CBO</sub>	V <sub>CB</sub> =20V, I <sub>E</sub> =0			0.1	μΑ
Emitter Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> =2V, I <sub>C</sub> =0			5.0	μA
DC Current Gain	h <sub>FE</sub> 1	V <sub>CE</sub> =5V, I <sub>C</sub> =50mA	40*		200*	
	h <sub>FE</sub> 2	V <sub>CE</sub> =5V, I <sub>C</sub> =500mA	20			
Gain-Bandwidth Product	fT	V <sub>CE</sub> =5V, I <sub>C</sub> =100mA		2.0		GHz
Output Capacitance	Cob	V <sub>CB</sub> =10V, f=1MHz		6.0		pF
Reverse Transfer Capacitance	C <sub>re</sub>	V <sub>CB</sub> =10V, f=1MHz		4.6		pF
* h <sub>EE</sub> 1 : The 2SC3950 is classified by 50mA h <sub>EE</sub>	as follows :	40 C 80 60 D 120 100 E 200	7			

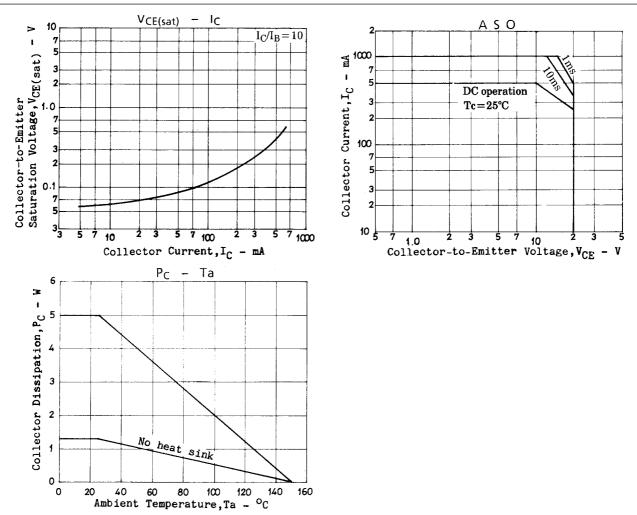
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Onit
Collector-to-Emitter Saturation Voltage	VCE(sat)	I <sub>C</sub> =300mA, I <sub>B</sub> =30mA		0.3	0.8	V
Base-to-Emitter Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =300mA, I <sub>B</sub> =30mA		0.9	1.2	V





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