

SANYO

No.1761B

2SA1402/2SC3596

PNP/NPN Epitaxial Planar Silicon Transistors

Ultrahigh-Definition CRT Display
Video Output Applications**Applications**

- Ultrahigh-definition CRT display.
- Video output.
- Color TV chroma output.
- Wide-band amp.

Features

- High f_T : f_T typ = 700MHz.
- Small reverse transfer capacitance and excellent high-frequency characteristic:
C_{re} = 1.8pF(NPN), 2.3pF(PNP)
- Complementary pair with the 2SA1402/2SC3596.
- Adoption of FBET process.

(): 2SA1402

Absolute Maximum Ratings at Ta = 25°C

			unit
Collector-to-Base Voltage	V _{CB0}	(-)80	V
Collector-to-Emitter Voltage	V _{CE0}	(-)60	V
Emitter-to-Base Voltage	V _{EB0}	(-)4	V
Collector Current	I _C	(-)300	mA
Collector Current (Pulse)	I _{CP}	(-)600	mA
Collector Dissipation	P _C	1.2	W
		8	W
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55 to +150	°C

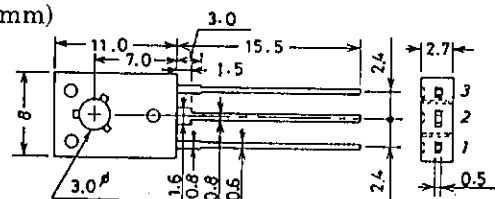
T_c = 25°C**Electrical Characteristics at Ta = 25°C**

			min	typ	max	unit
Collector Cutoff Current	I _{CB0}	V _{CB} = (-)60V, I _E = 0			(-)0.1	μA
Emitter Cutoff Current	I _{EB0}	V _{EB} = (-)2V, I _C = 0			(-)1.0	μA
DC Current Gain	h _{FE} (1)	V _{CE} = (-)10V, I _C = (-)50mA	40※		320※	
	h _{FE} (2)	V _{CE} = (-)10V, I _C = (-)250mA	20			
Gain Bandwidth Product	f _T	V _{CE} = (-)10V, I _C = (-)100mA		700		MHz
C-E Saturation Voltage	V _{CE(sat)}	I _C = (-)100mA, I _B = (-)10mA			0.6	V
					(-0.8)	

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※: The 2SA1402/2SC3596 are classified by 50mA h_{FE} as follows:

40	C	80	60	D	120
100	E	200	160	F	320

Package Dimensions 2009B
(unit: mm)

1: Emitter
2: Collector
3: Base

JEDEC: TO126

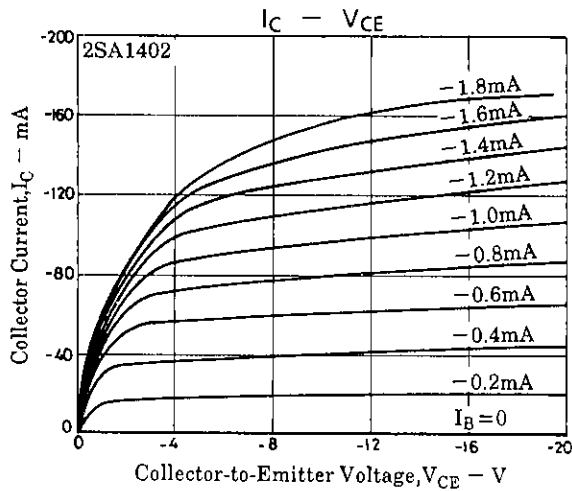
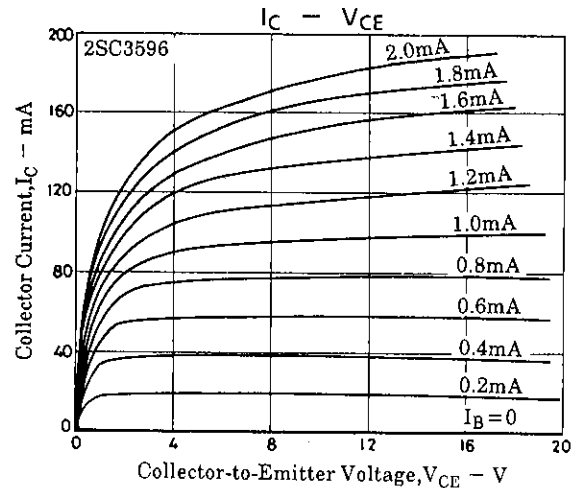
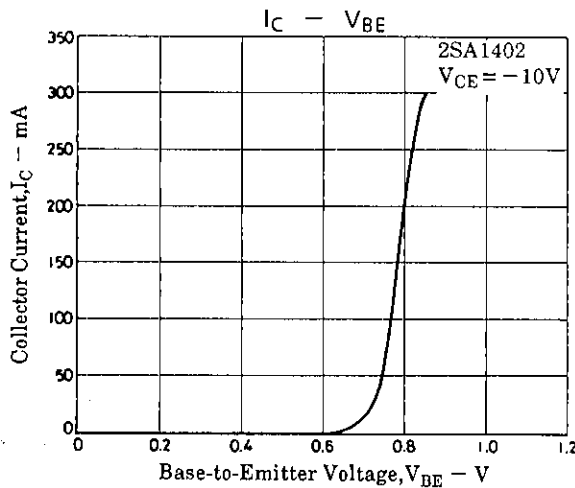
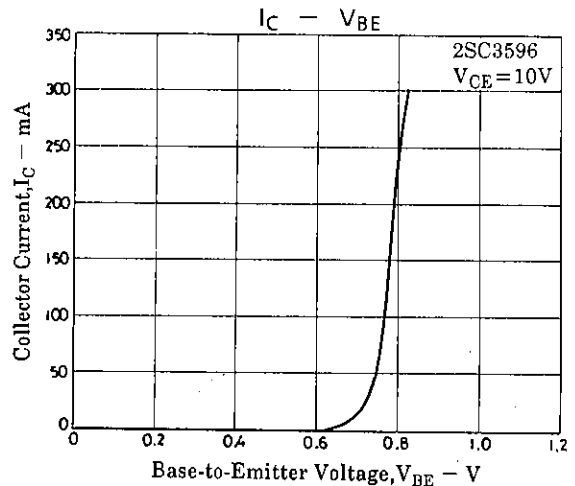
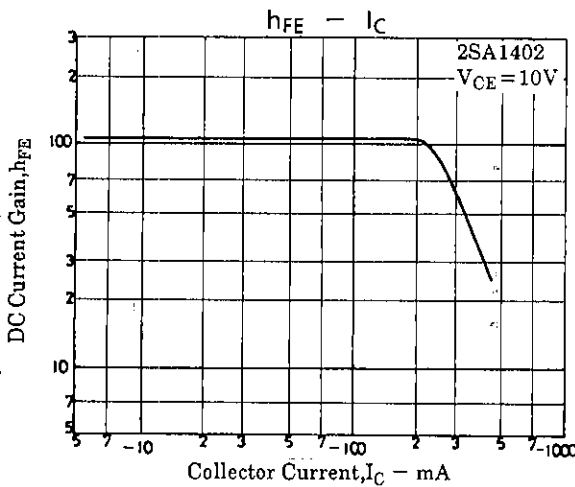
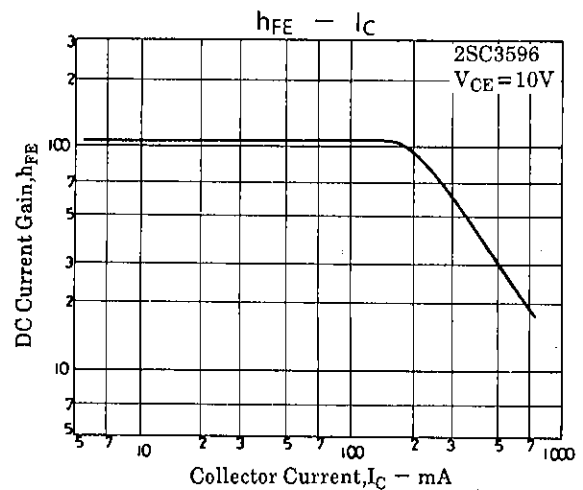
SANYO Electric Co., Ltd. Semiconductor Business Headquarters
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

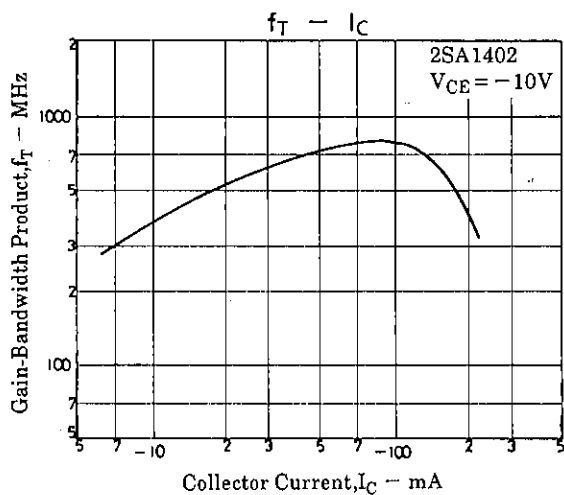
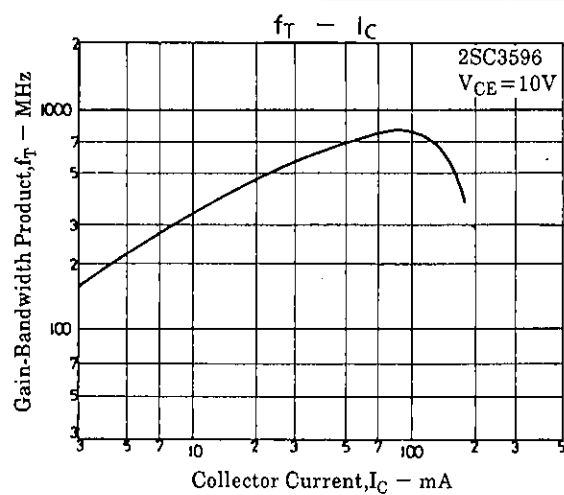
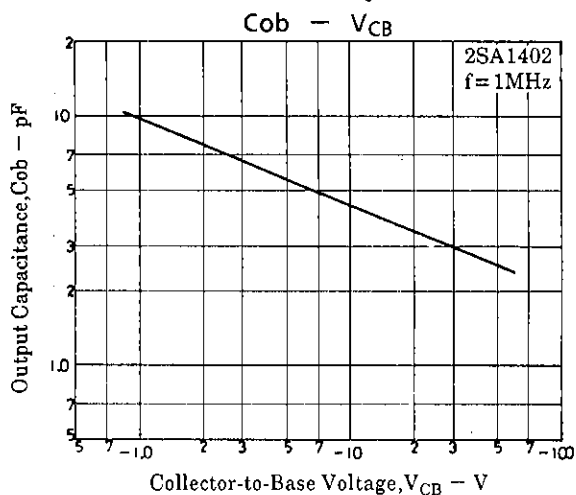
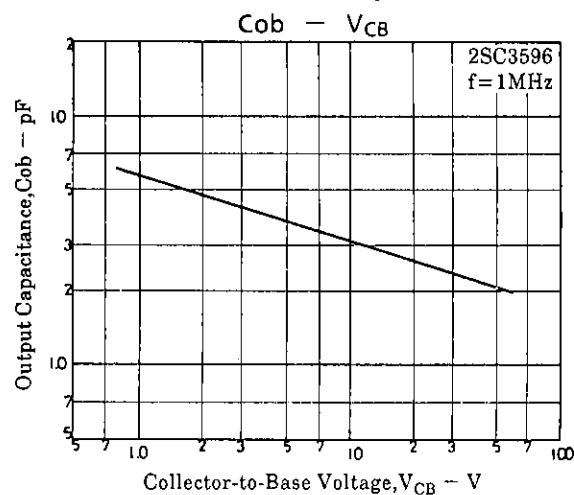
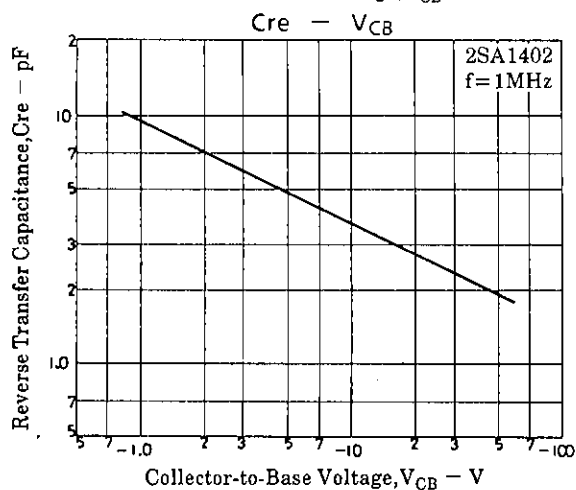
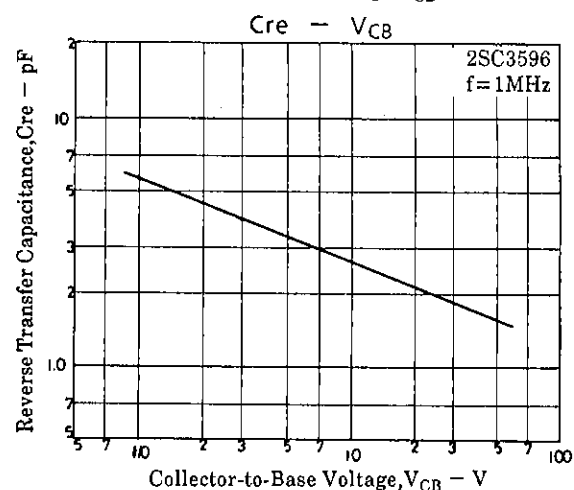
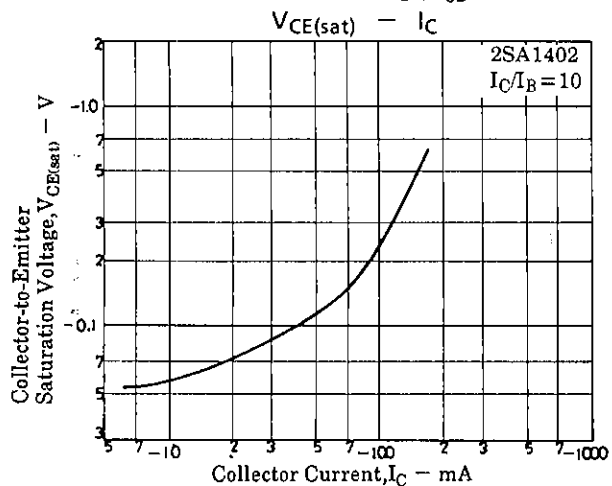
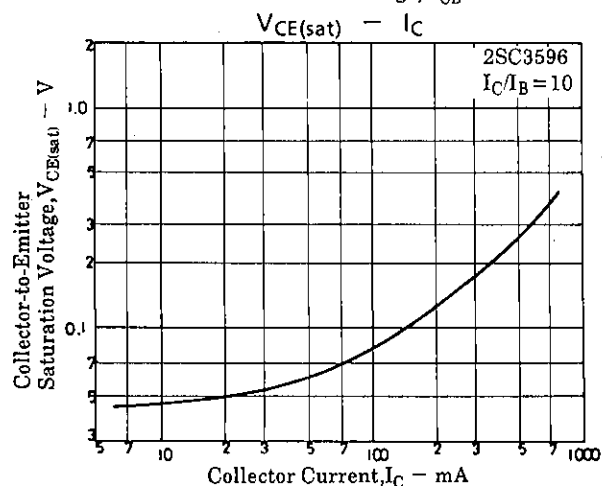
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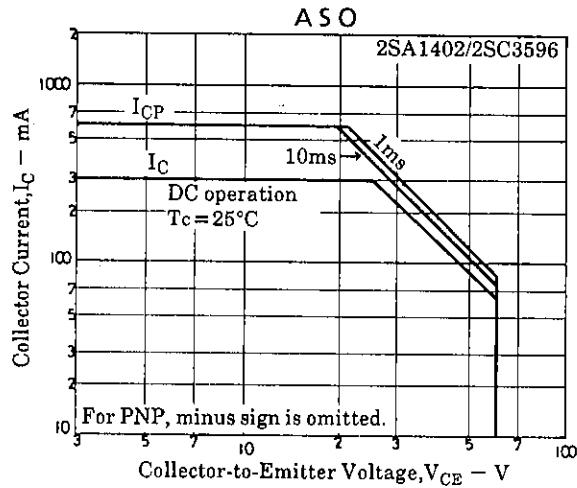
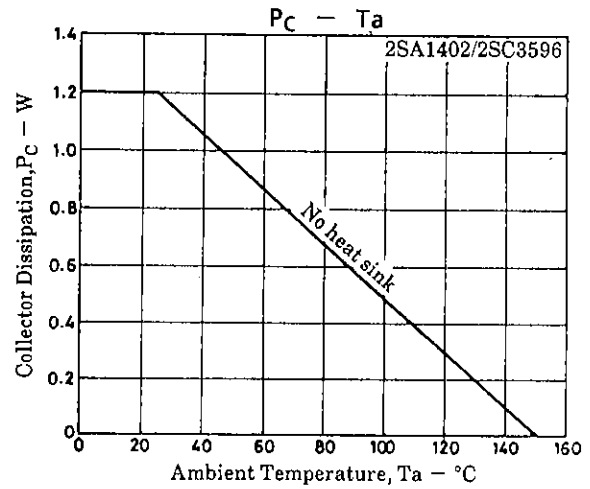
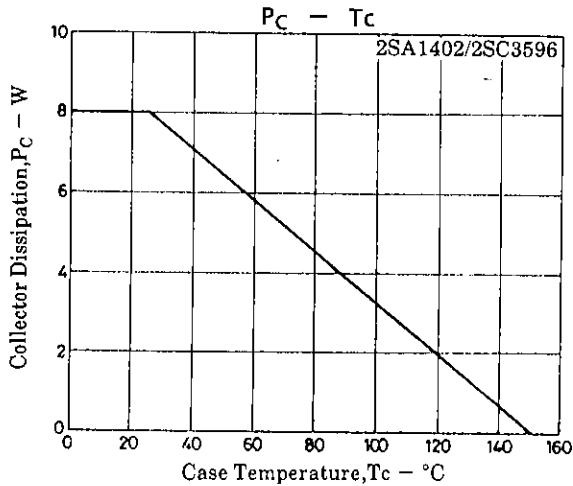
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			min	typ	max	unit
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = (-)100mA, I_B = (-)10mA$			(-) 1.0	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)10\mu A, I_E = 0$	(-) 80			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)1mA, R_{BE} = \infty$	(-) 60			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = (-)100\mu A, I_C = 0$	(-) 4			V
Output Capacitance	C_{ob}	$V_{CB} = (-)30V, f = 1MHz$		2.3		pF
				(3.0)		pF
Reverse Transfer Capacitance	C_{re}	$V_{CB} = (-)30V, f = 1MHz$		1.8		pF
				(2.3)		pF





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