

SANYO	No.1761B	<h1 style="margin: 0;">2SA1402/2SC3596</h1> <p style="margin: 0;">PNP/NPN Epitaxial Planar Silicon Transistors</p> <h2 style="margin: 0;">Ultrahigh-Definition CRT Display Video Output Applications</h2>
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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 :
Cre = 1.8pF(NPN), 2.3pF(PNP)
- Complementary pair with the 2SA1402/2SC3596.
- Adoption of FBET process.

() : 2SA1402

Absolute Maximum Ratings at Ta = 25°C

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

$T_c = 25^\circ C$

Electrical Characteristics at Ta = 25°C

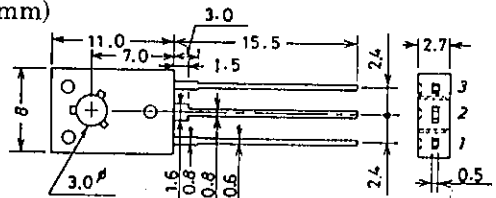
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB} = (-)60V, I_E = 0$			(-)0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = (-)2V, I_C = 0$			(-)1.0	μA
DC Current Gain	$h_{FE}(1)$	$V_{CE} = (-)10V, I_C = (-)50mA$	40※		320※	
	$h_{FE}(2)$	$V_{CE} = (-)10V, I_C = (-)250mA$	20			
Gain Bandwidth Product	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)



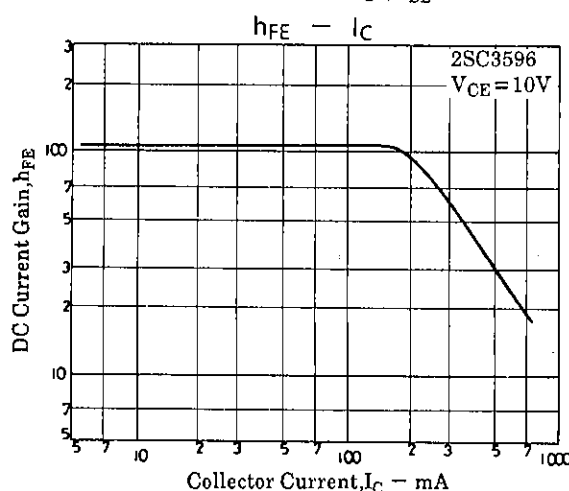
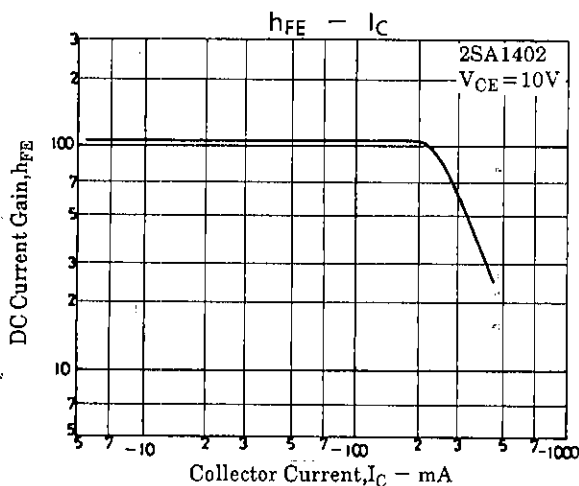
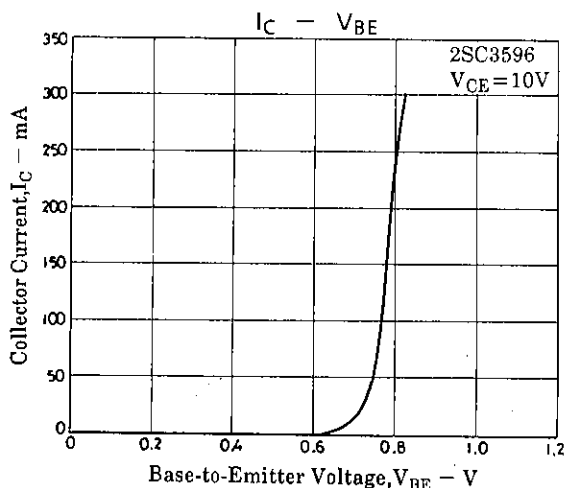
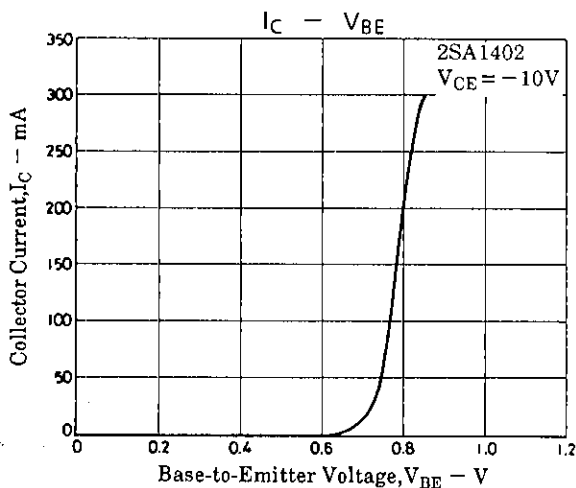
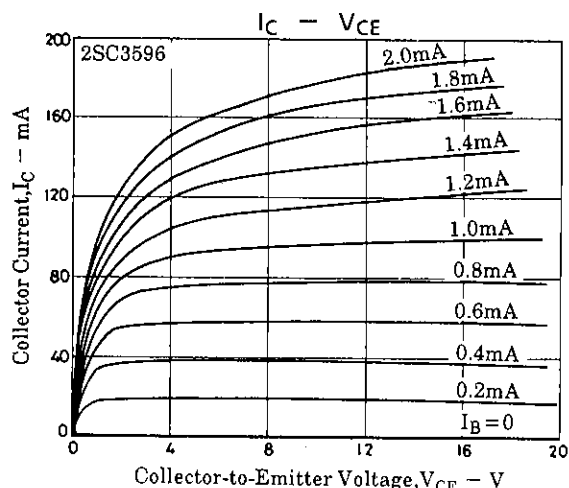
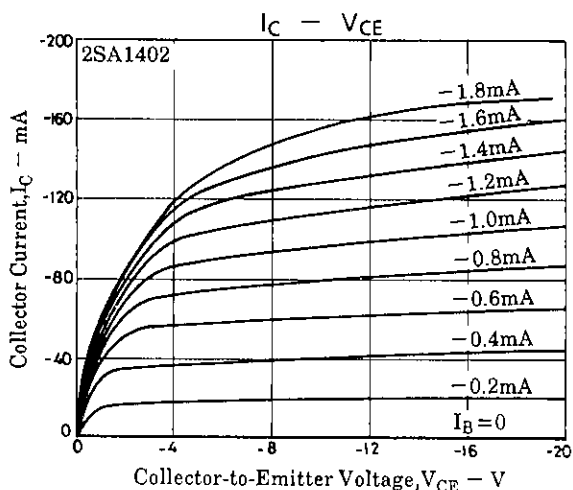
- 1 : Emitter
- 2 : Collector
- 3 : Base

JEDEC : TO126

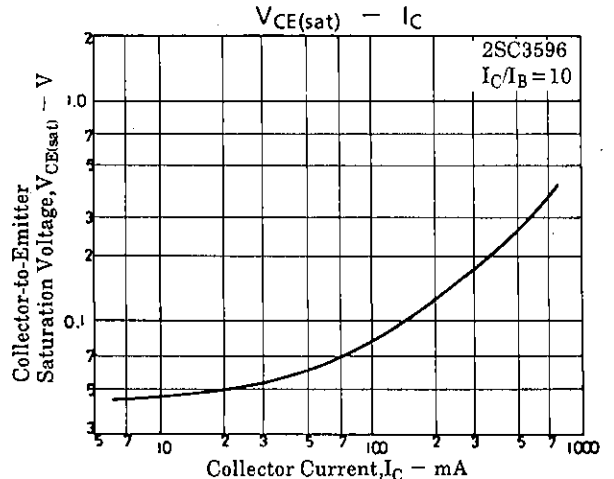
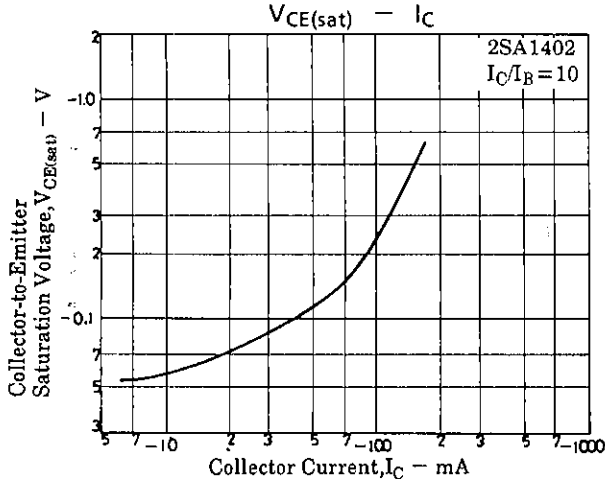
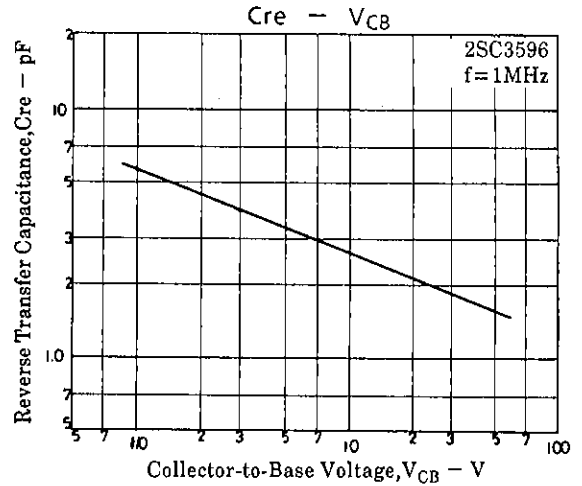
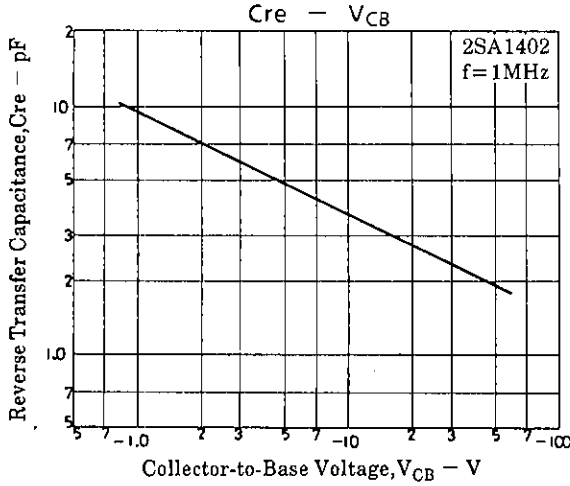
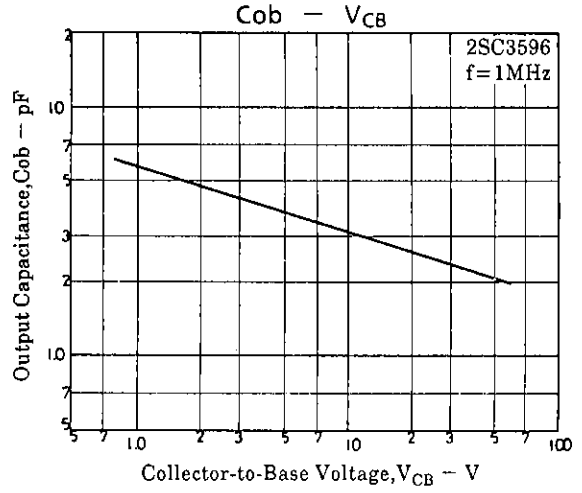
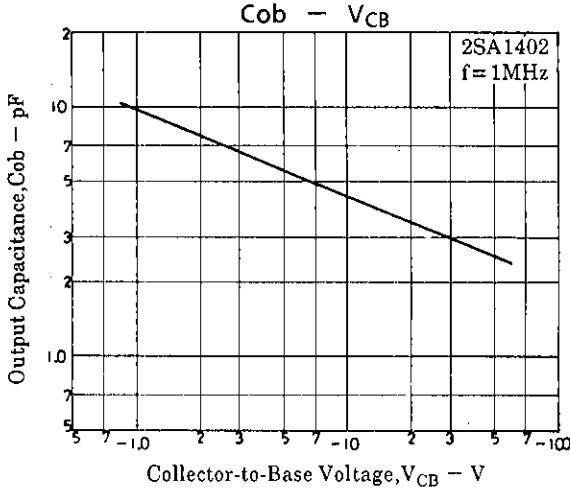
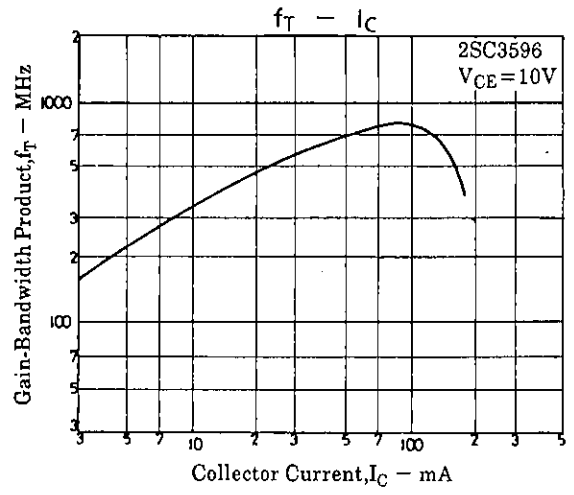
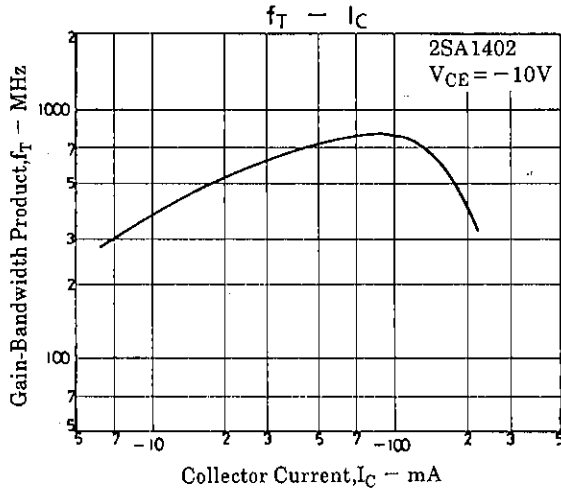
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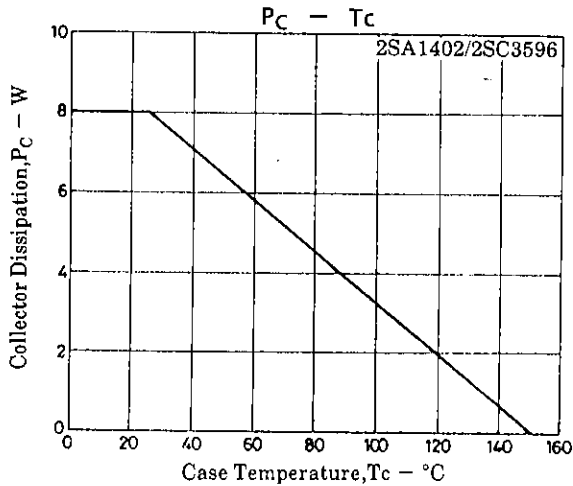
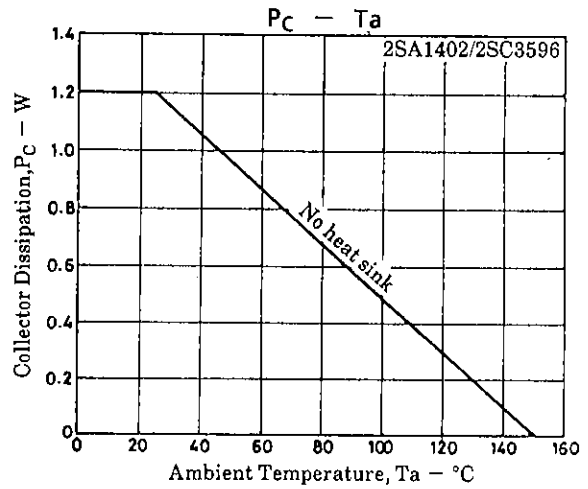
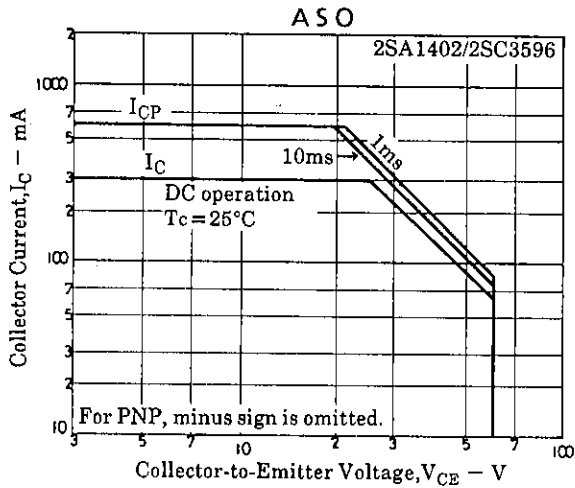
			min	typ	max	unit
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = (-)100\text{mA}, I_B = (-)10\text{mA}$			(-) 1.0	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)10\mu\text{A}, I_E = 0$	(-) 80			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)1\text{mA}, R_{BE} = \infty$	(-) 60			V
E-B Breakdown Voltage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



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