

<b>SANYO</b>	No.1761B	<b>2SA1402/2SC3596</b>
		PNP/NPN Epitaxial Planar Silicon Transistors <b>Ultrahigh-Definition CRT Display Video Output Applications</b>

**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**

			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

$T_c = 25^\circ C$

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

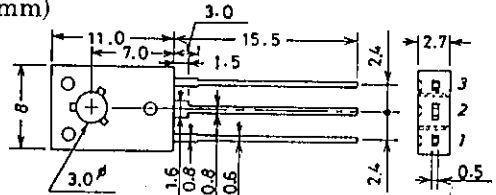
			min	typ	max	unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = (-)60V, I_E = 0$			(-)0.1	$\mu A$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = (-)2V, I_C = 0$			(-)1.0	$\mu A$
DC Current Gain	$h_{FE}(1)$	$V_{CE} = (-)10V, I_C = (-)50mA$	40*		320*	
	$h_{FE}(2)$	$V_{CE} = (-)10V, I_C = (-)250mA$	20			
Gain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



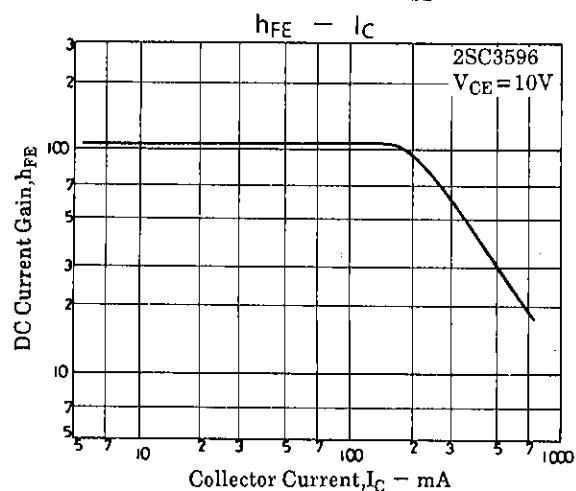
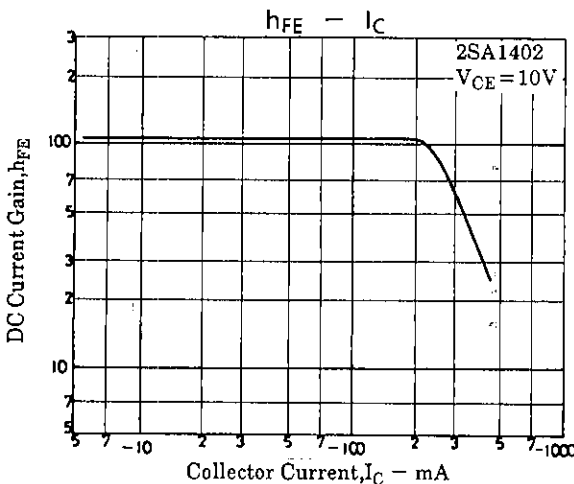
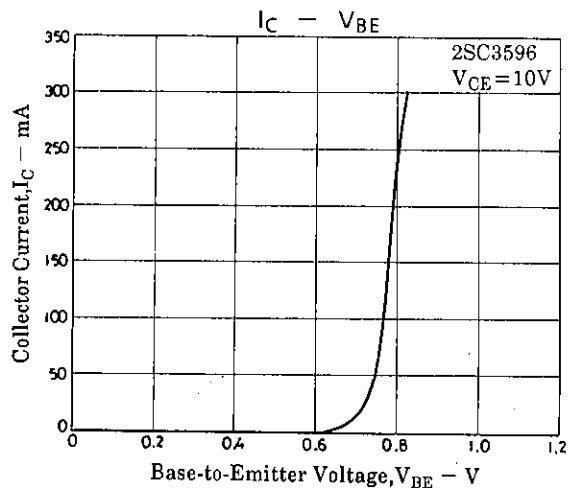
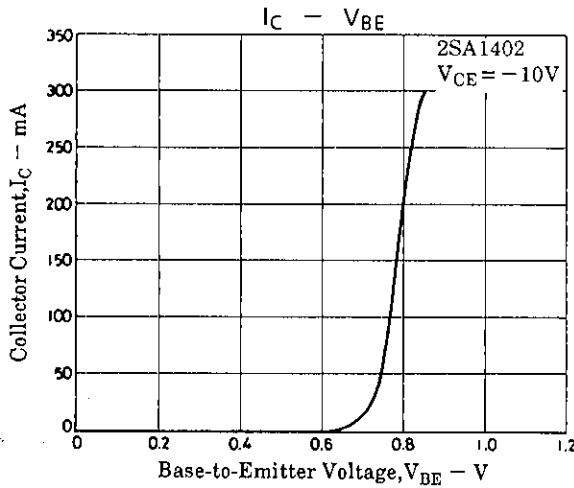
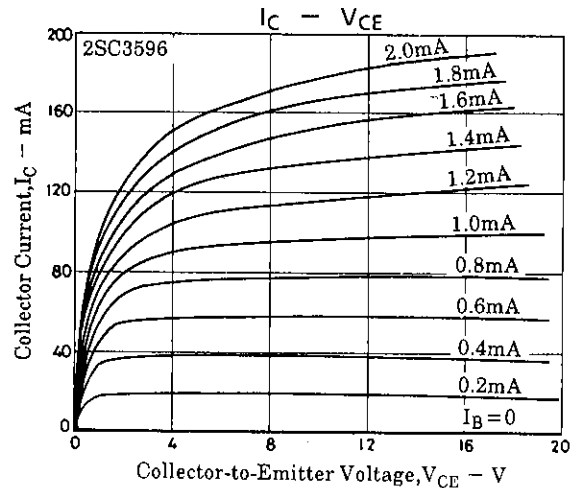
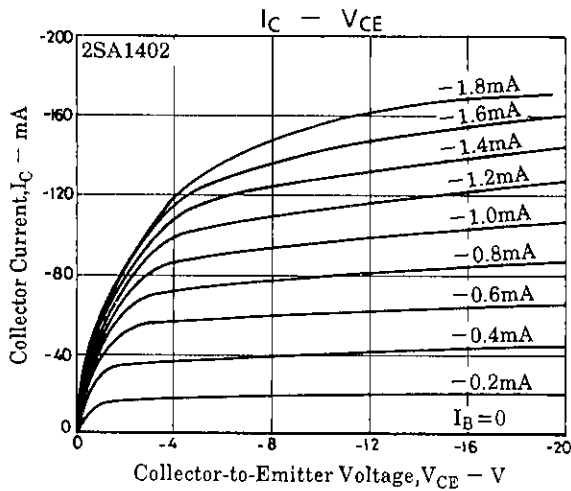
- 1 : Emitter
- 2 : Collector
- 3 : Base

JEDEC : TO126

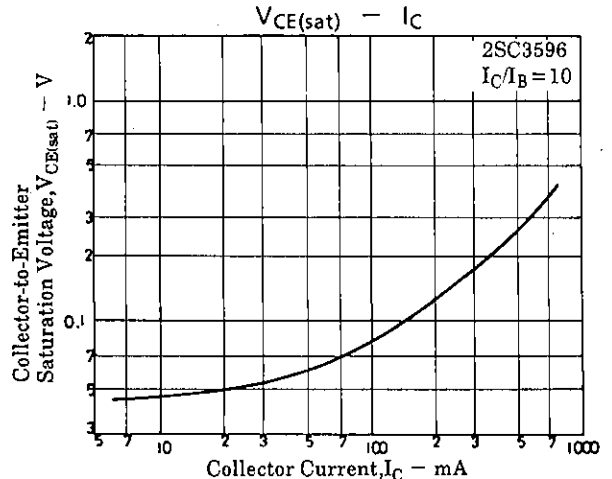
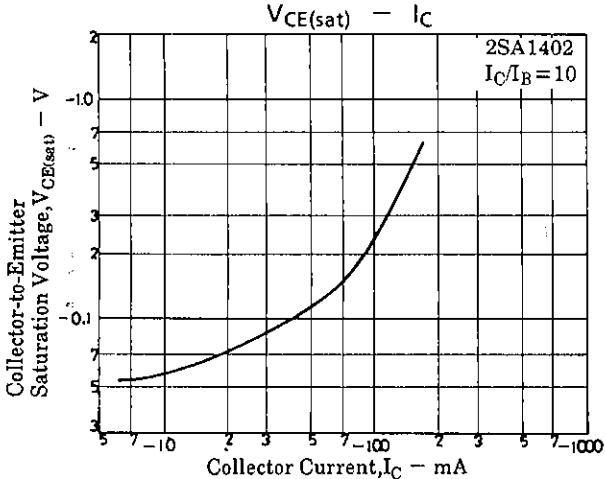
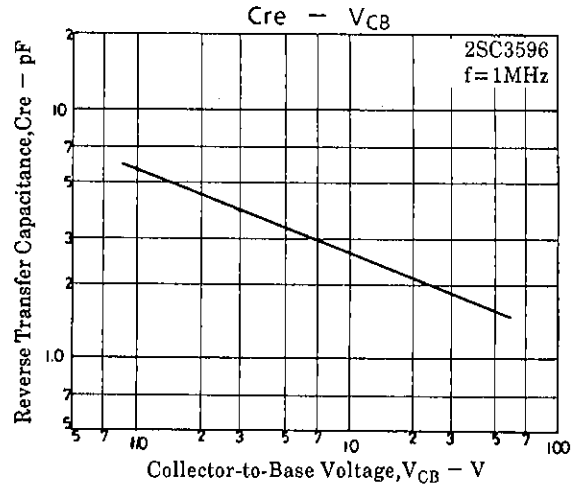
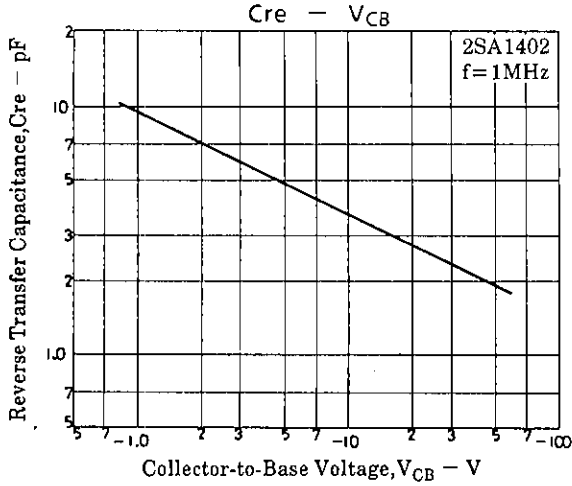
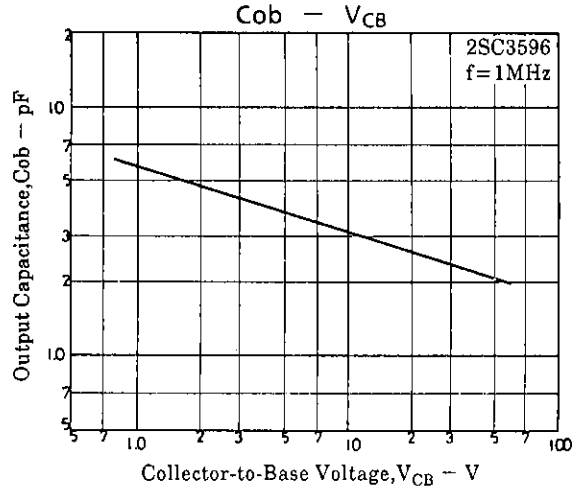
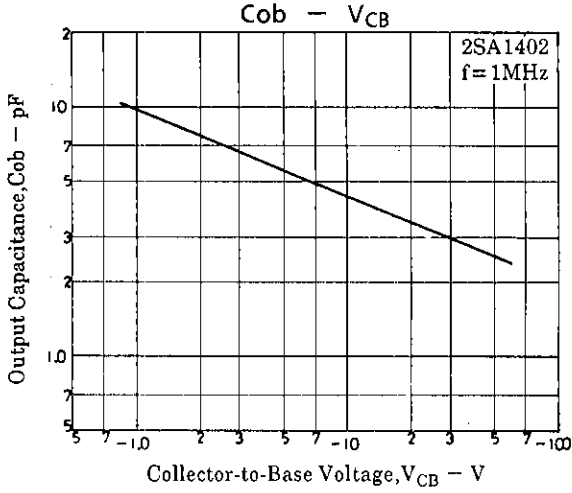
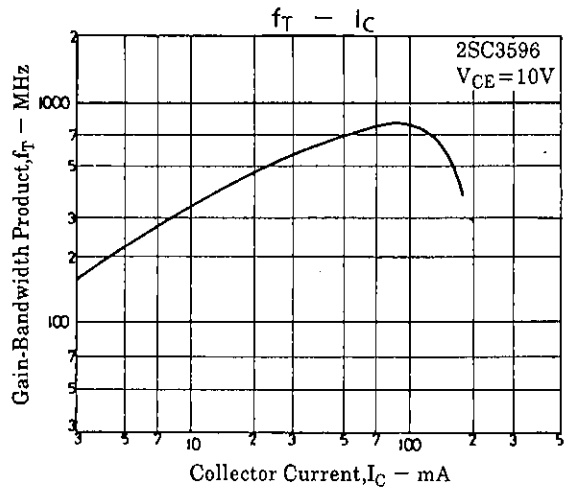
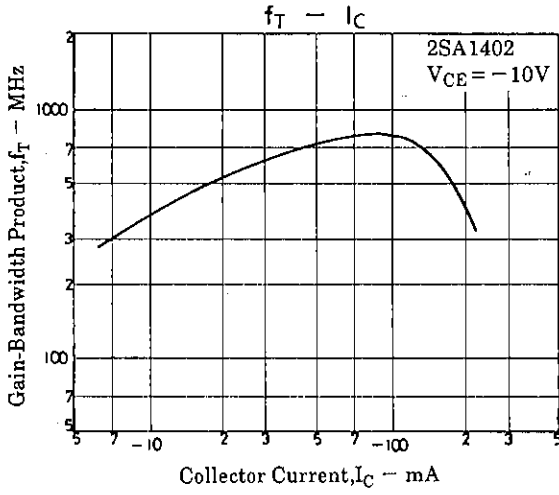
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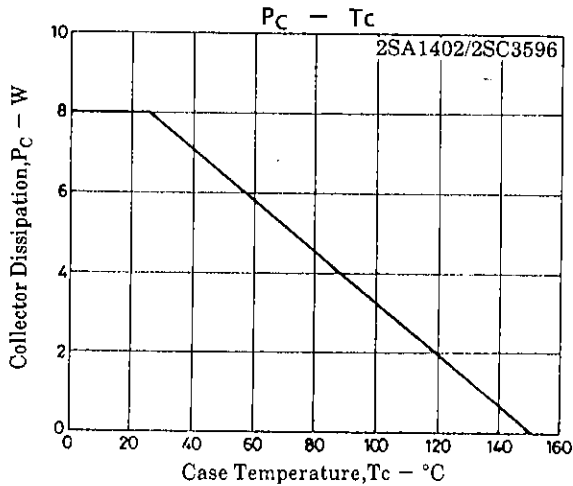
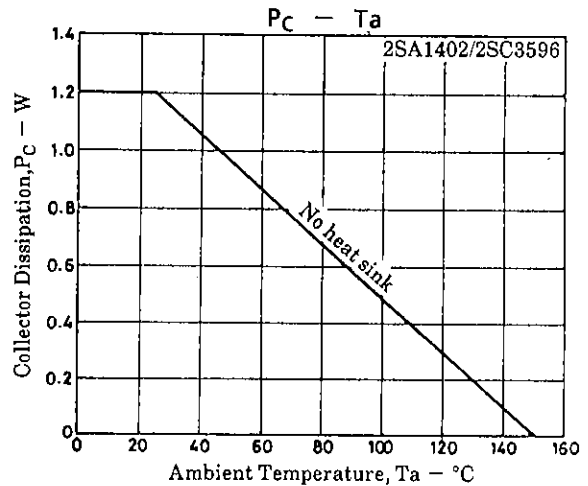
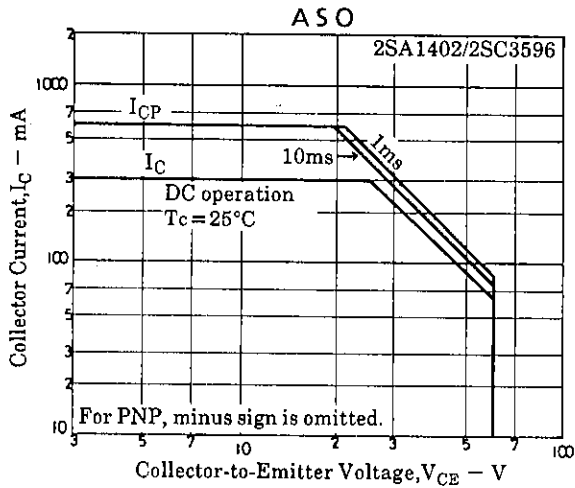
			min	typ	max	unit
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = (-)100\text{mA}, I_B = (-)10\text{mA}$			(-) $1.0$	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)10\mu\text{A}, I_E = 0$	(-) $80$			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)1\text{mA}, R_{BE} = \infty$	(-) $60$			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = (-)100\mu\text{A}, I_C = 0$	(-) $4$			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



2SA1402/2SC3596



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