

**SANYO**

No.1756B

**2SC3595**

NPN Epitaxial Planar Silicon Transistor

Ultrahigh-Definition  
CRT Display Applications**Applications**

- Ultrahigh-definition CRT display.
- Video output driver.
- Wideband amplifiers.

**Features**

- High  $f_T$ :  $f_T$  typ = 2.0GHz.
- High current:  $I_C$  = 500mA.

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

			unit
Collector-to-Base Voltage	$V_{CB0}$	30	V
Collector-to-Emitter Voltage	$V_{CE0}$	20	V
Emitter-to-Base Voltage	$V_{EB0}$	3	V
Collector Current	$I_C$	500	mA
Collector Current (Pulse)	$I_{CP}$	1000	mA
Collector Dissipation	$P_C$	1.2	W
		5	W
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

$T_c = 25^\circ\text{C}$

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

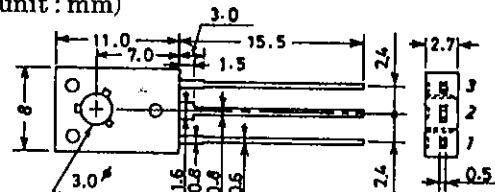
			min	typ	max	unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = 20\text{V}, I_E = 0$			0.1	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 2\text{V}$			5.0	$\mu\text{A}$
DC Current Gain	$h_{FE(1)}$	$V_{CE} = 5\text{V}, I_C = 50\text{mA}$	40*		200*	
	$h_{FE(2)}$	$V_{CE} = 5\text{V}, I_C = 500\text{mA}$	20			
Gain-Bandwidth Product	$f_T$	$V_{CE} = 5\text{V}, I_C = 100\text{mA}$		2.0		GHz
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = 300\text{mA}, I_B = 30\text{mA}$		0.25	0.6	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = 300\text{mA}, I_B = 30\text{mA}$		0.92	1.2	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 10\mu\text{A}, I_E = 0$	30			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 1\text{mA}, R_{BE} = \infty$	20			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 100\mu\text{A}, I_C = 0$	3			V
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

\* : The 2SC3595 is classified by 50mA  $h_{FE}$  as follows :

40	C	80	60	D	120	100	E	200
----	---	----	----	---	-----	-----	---	-----

**Package Dimensions 2009B**

(unit: mm)



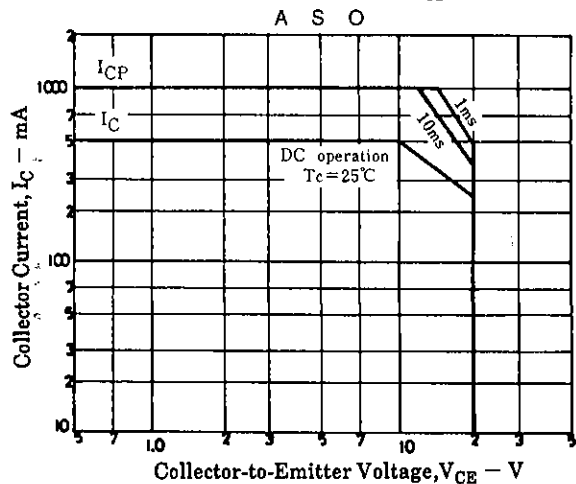
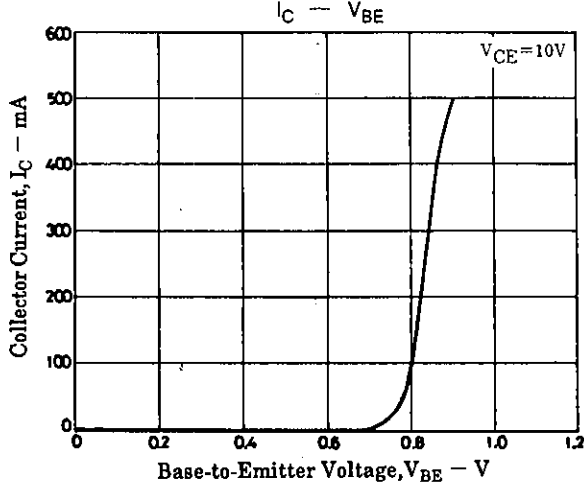
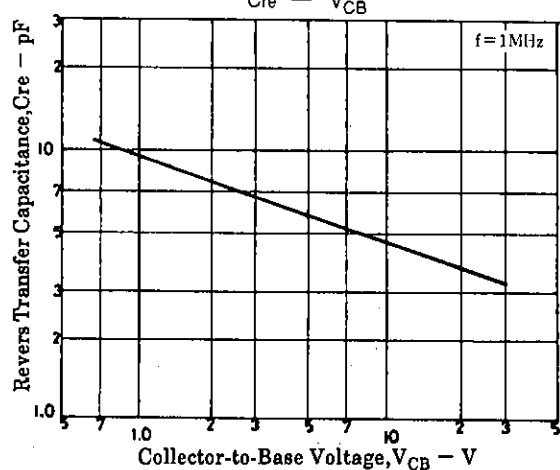
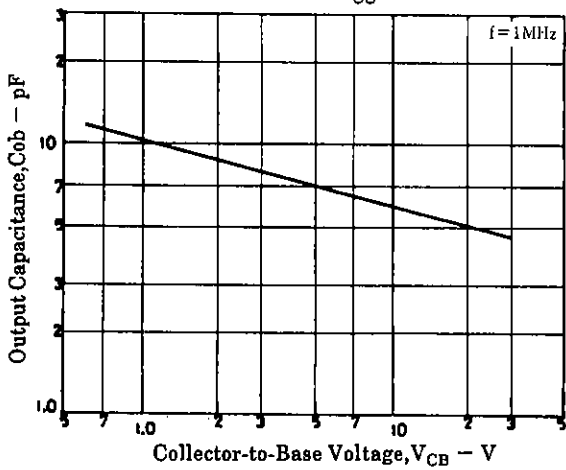
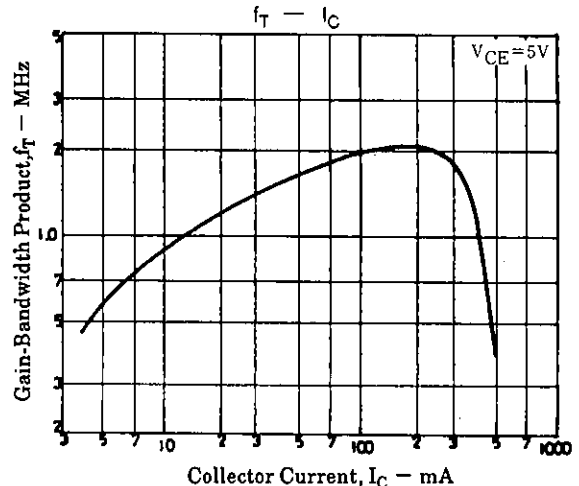
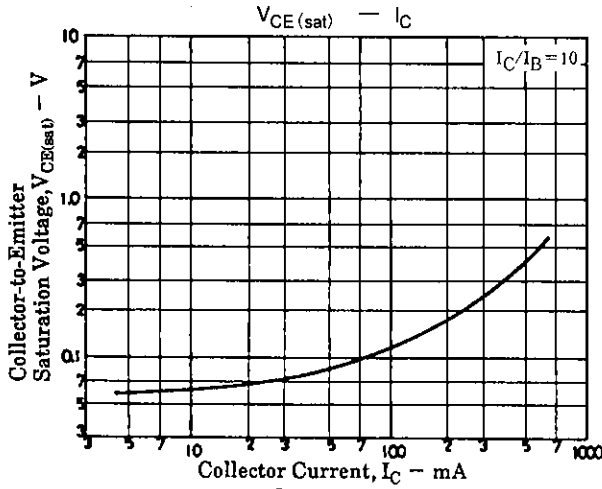
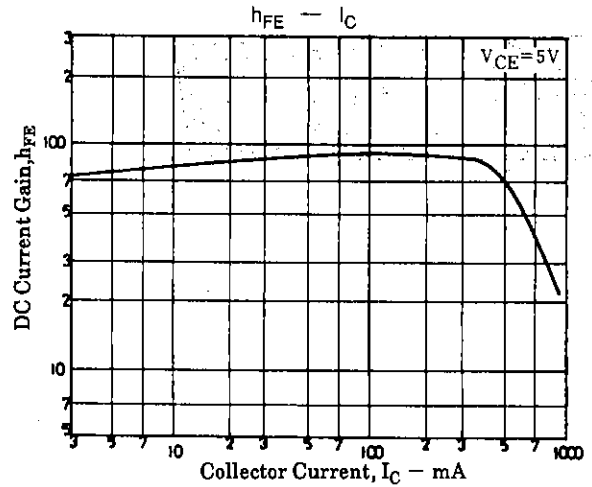
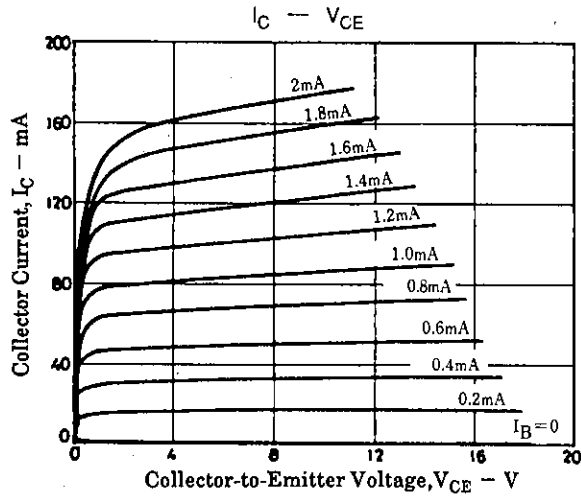
1: Emitter  
2: Collector  
3: Base

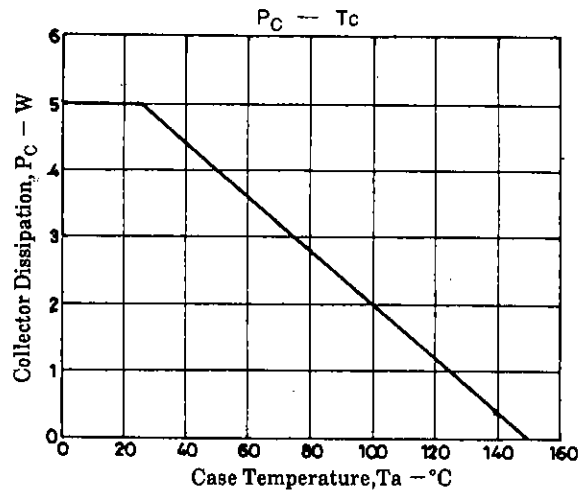
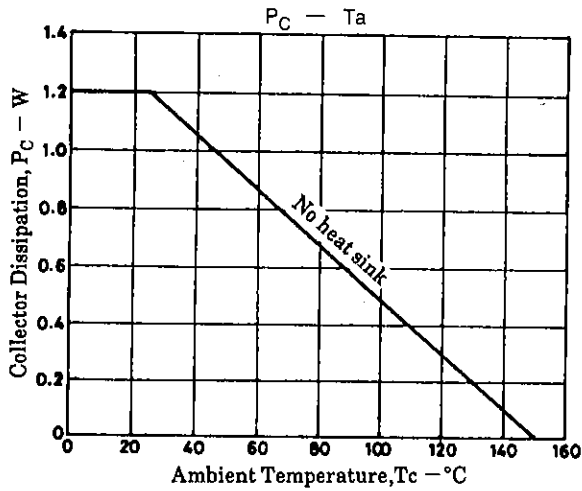
JEDEC: TO126

**SANYO Electric Co., Ltd. Semiconductor Business Headquarters**

TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

80796TS (KOTO) 8-7237/4227KI/3145MY, TS No.1756-1/3





- No products described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster/crime-prevention equipment and the like, the failure of which may directly or indirectly cause injury, death or property loss.
- Anyone purchasing any products described or contained herein for an above-mentioned use shall:
  - ① Accept full responsibility and indemnify and defend SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors and all their officers and employees, jointly and severally, against any and all claims and litigation and all damages, cost and expenses associated with such use:
  - ② Not impose any responsibility for any fault or negligence which may be cited in any such claim or litigation on SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors or any of their officers and employees jointly or severally.
- Information (including circuit diagrams and circuit parameters) herein is for example only; it is not guaranteed for volume production. SANYO believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.

This catalog provides information as of August, 1996. Specifications and information herein are subject to change without notice.