

SANYO	No.2439A	2SA1540/2SC3955
		PNP/NPN Epitaxial Planar Silicon Transistors High-Definition CRT Display Video Output Applications

Applications

- High-definition CRT display video output, wide-band amp

Features

- High gain-bandwidth product ($f_T=300\text{MHz}$)
- High breakdown voltage ($V_{CEO}=200\text{Vmin}$)
- Small reverse transfer capacitance and excellent high frequency characteristics ($c_{re}=1.5\text{pF/NPN}$, 1.8pF/PNP)
- Complementary PNP and NPN types
- Adoption of FBET process
- Micaless type (T0126 plastic package)

(): PNP

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

			unit
Collector-to-Base Voltage	V_{CB0}	(-)200	V
Collector-to-Emitter Voltage	V_{CEO}	(-)200	V
Emitter-to-Base Voltage	V_{EBO}	(-)3	V
Collector Current	I_C	(-)100	mA
Peak Collector Current	i_{cp}	(-)200	mA
Collector Dissipation	P_C	1.3	W
		$T_c=25^\circ\text{C}$	7
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

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

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB}=(-)150\text{V}, I_E=0$			(-)0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=(-)2\text{V}, I_C=0$			(-)1.0	μA
DC Current Gain	h_{FE1}	$V_{CE}=(-)10\text{V}, I_C=(-)10\text{mA}$	40*		320*	
	h_{FE2}	$V_{CE}=(-)10\text{V}, I_C=(-)50\text{mA}$	20			
Gain-Bandwidth Product	f_T	$V_{CE}=(-)30\text{V}, I_C=(-)30\text{mA}$		300		MHz
Output Capacitance	c_{ob}	$V_{CB}=(-)30\text{V}, f=1\text{MHz}$		1.9		pF
				(2.4)		pF
Reverse Transfer Capacitance	c_{re}	$V_{CB}=(-)30\text{V}, f=1\text{MHz}$		1.5		pF
				(1.8)		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)20\text{mA}, I_B=(-)2\text{mA}$			(-)1.0	V
E-B Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)20\text{mA}, I_B=(-)2\text{mA}$			(-)1.0	V

* h_{FE1} : The 2SA1540/2SC3955 are classified by 10mA h_{FE} as follows:

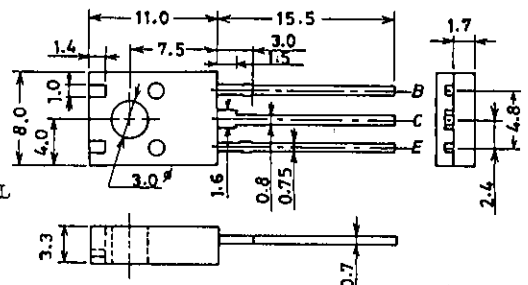
40	C	80	60	D	120	100	E	200	160	F	320
----	---	----	----	---	-----	-----	---	-----	-----	---	-----

Package Dimensions 2042A

(unit: mm)

B: Base
C: Collector
E: Emitter

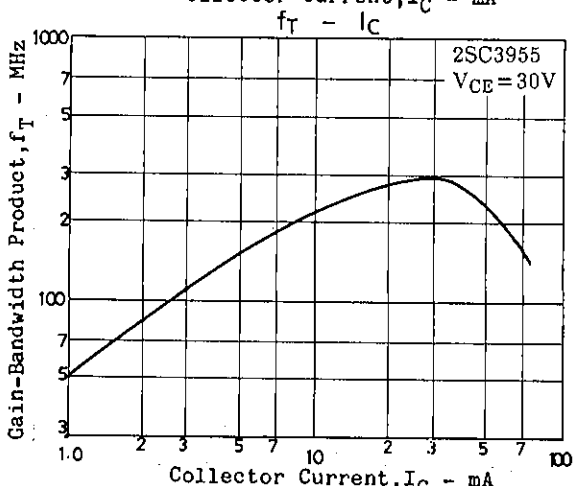
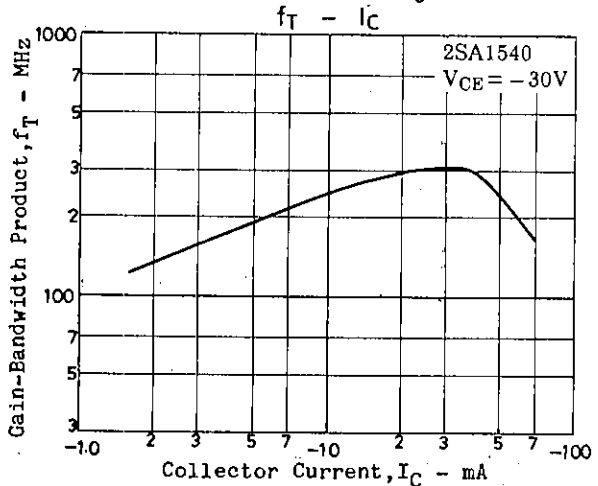
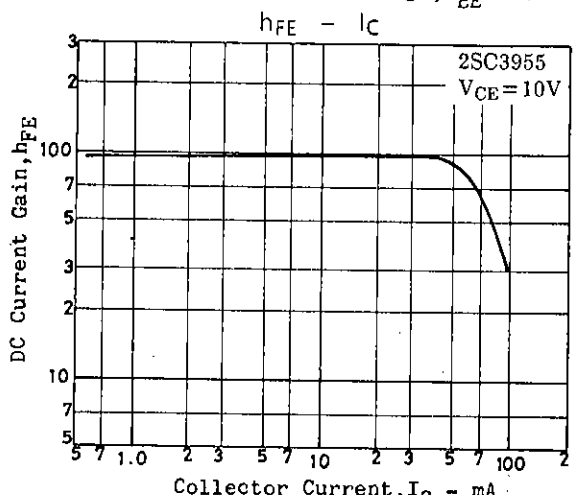
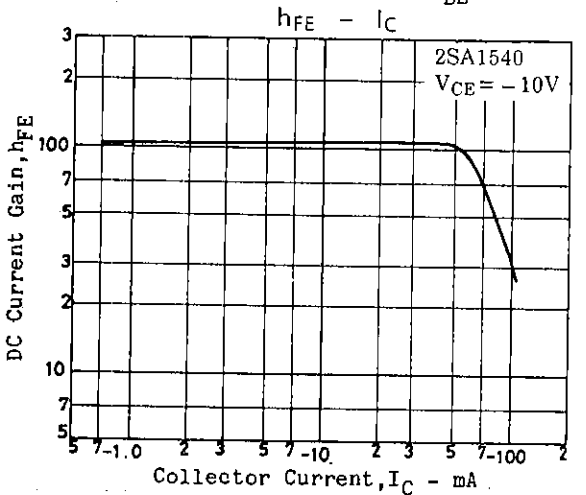
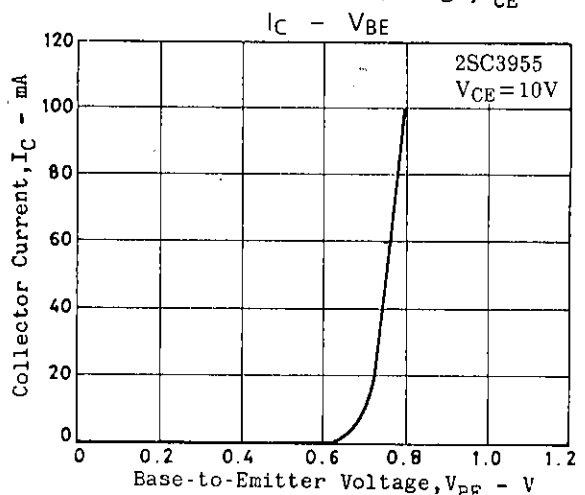
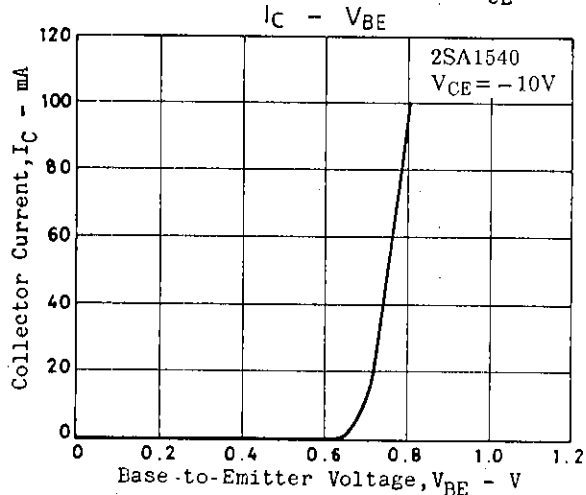
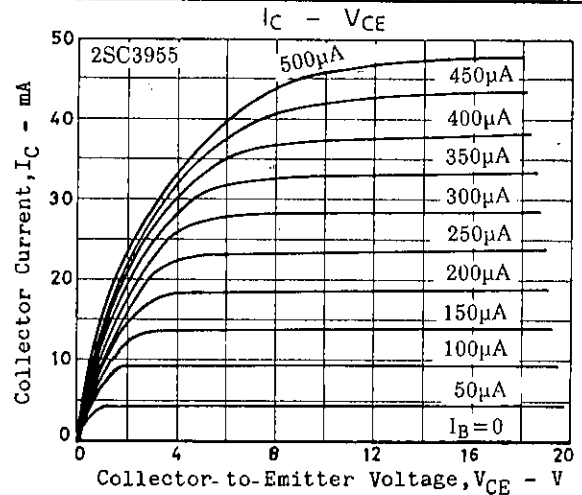
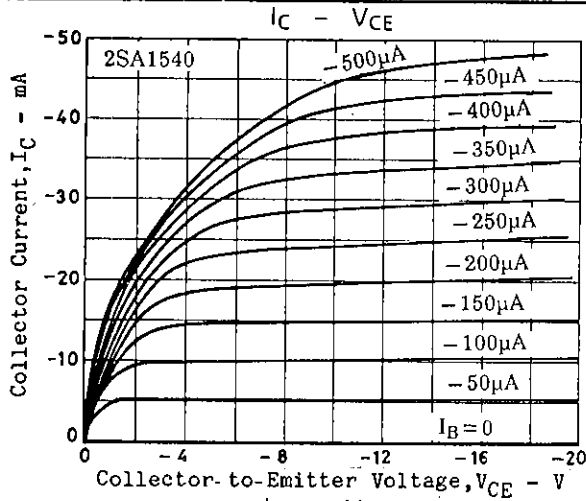
SANYO: T0126ML



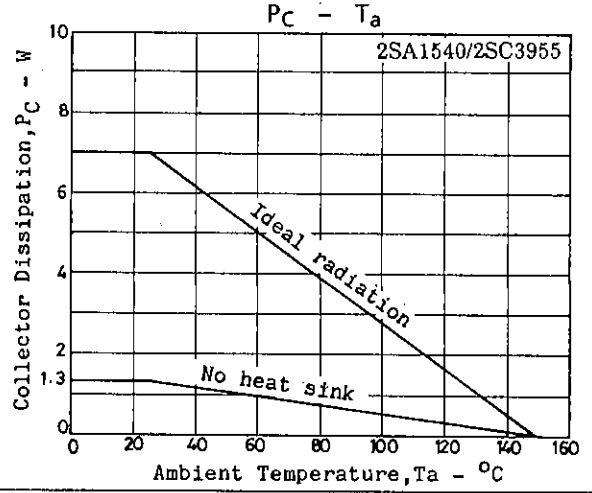
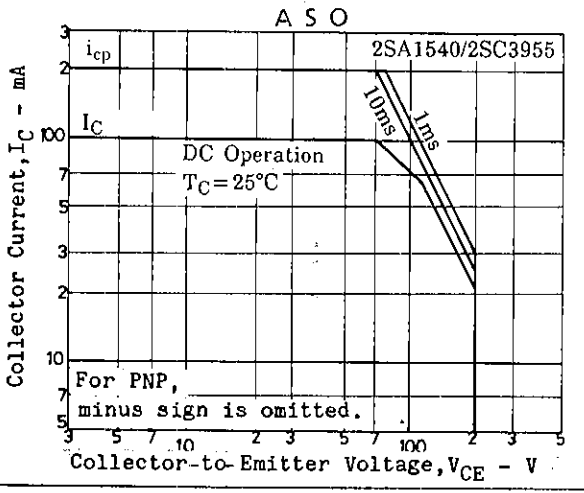
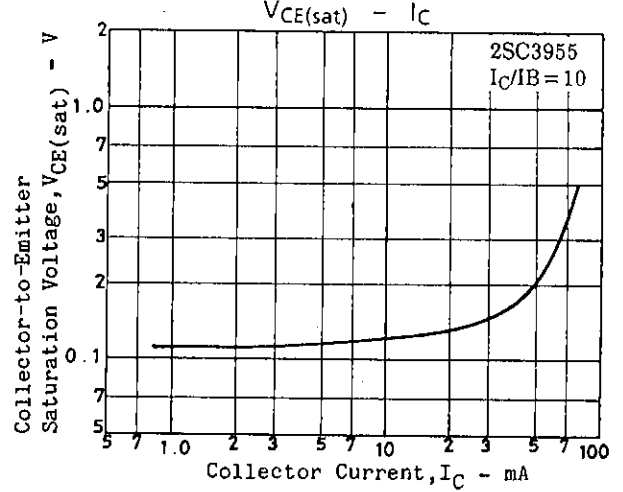
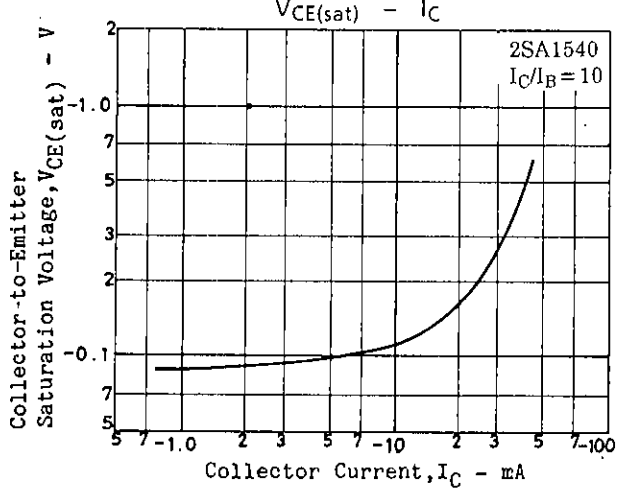
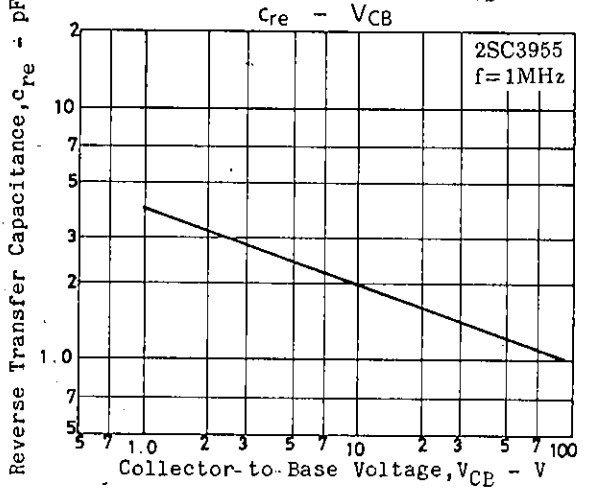
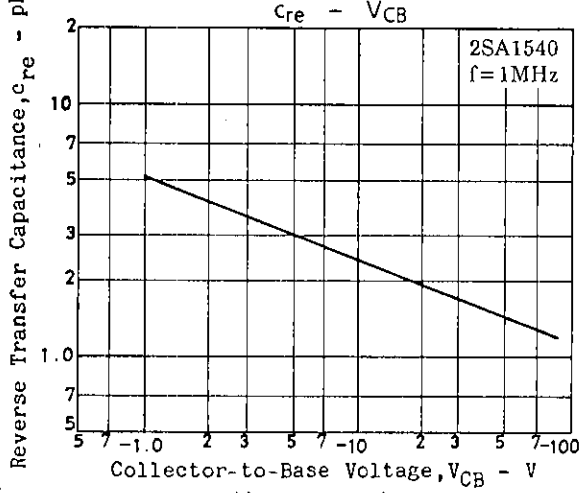
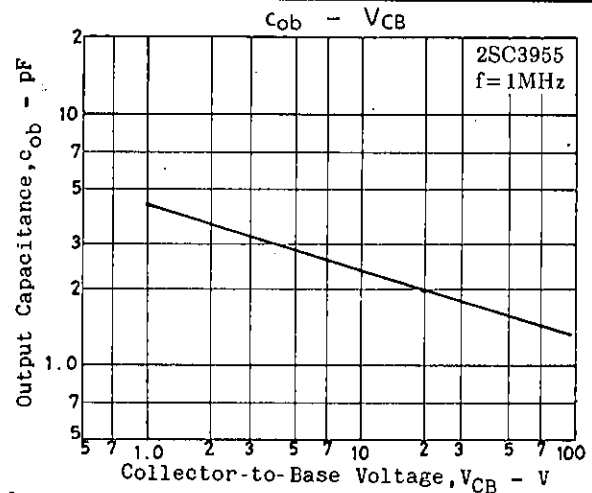
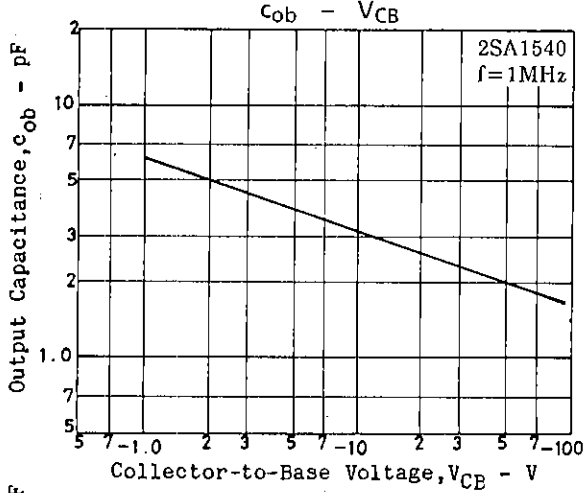
SANYO Electric Co., Ltd. Semiconductor Business Headquarters

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

2SA1540/2SC3955



2SA1540/2SC3955



- 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.