Ordering number: EN 2439A

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=300MHz)
- High breakdown voltage (V_{CEO}=200Vmin)
- Small reverse transfer capacitance and excellent high frequency characteristics (c_{re}=1.5pF/NPN, 1.8pF/PNP)
- Complementary PNP and NPN types
- Adoption of FBET process
- Micaless type (TO126 plastic package)

( ): PNP

Absolute Maximum Ratings at Ta=25°C

				unit
Collector-to-Base Voltage	V_{CBO}		(-)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
		Tc=25°C	7	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

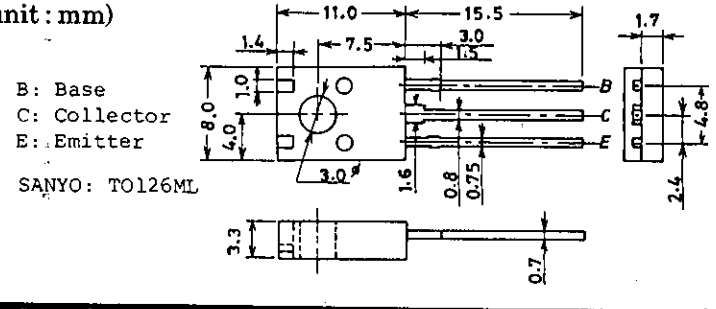
Electrical Characteristics at Ta=25°C

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

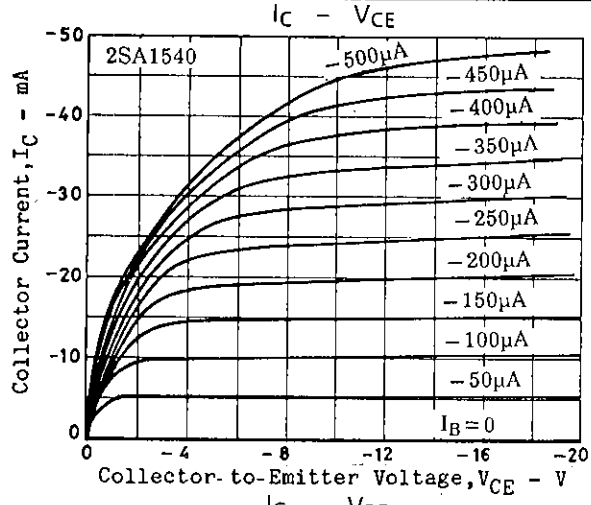


B: Base
C: Collector
E: Emitter

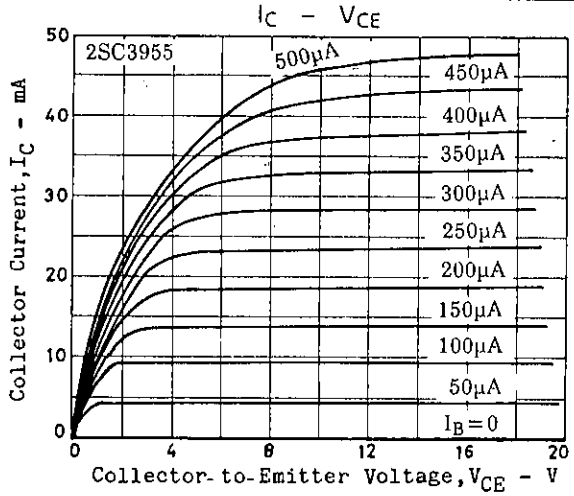
SANYO: TO126ML

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

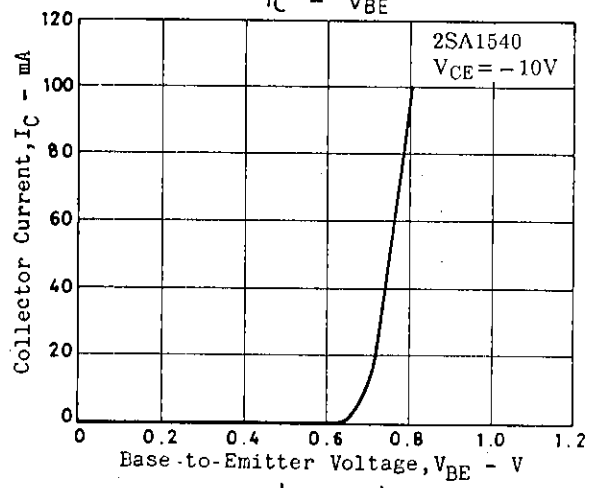
I_C – V_{CE}



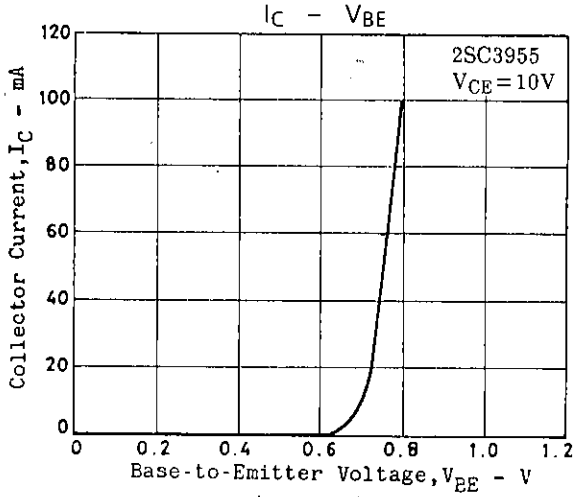
I_C – V_{CE}



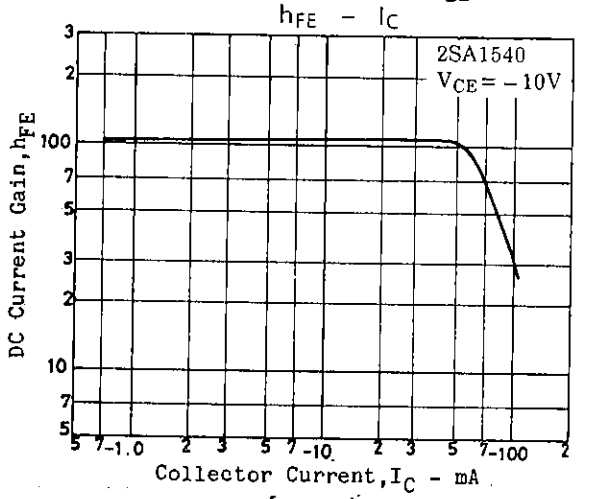
I_C – V_{BE}



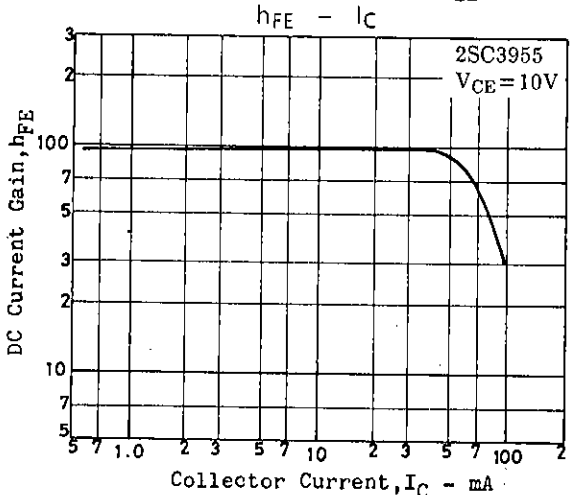
I_C – V_{BE}



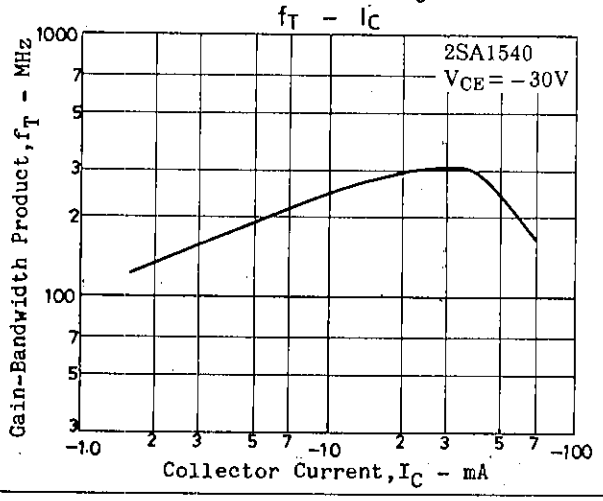
h_{FE} – I_C



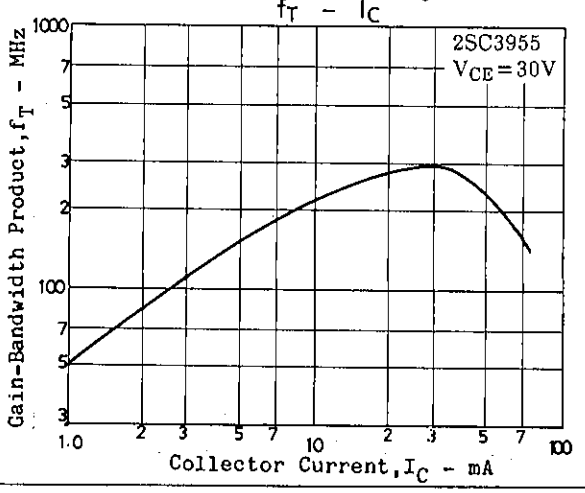
h_{FE} – I_C



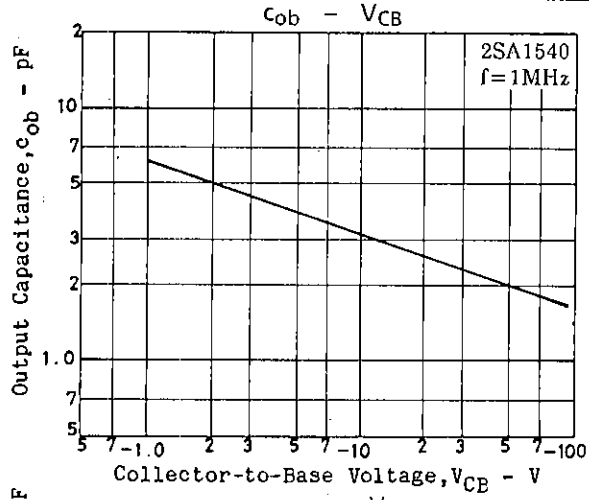
f_T – I_C



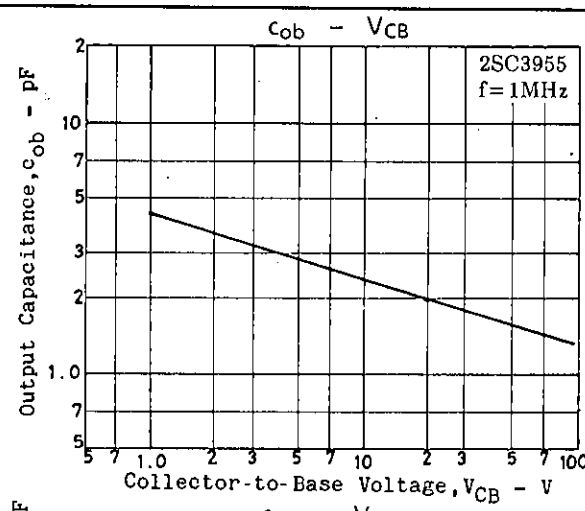
f_T – I_C



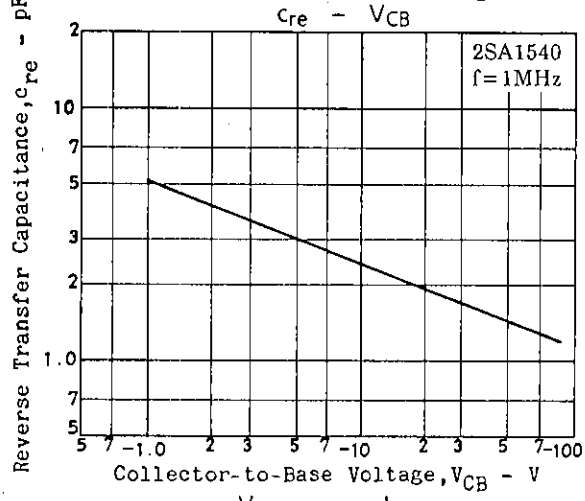
C_{ob} – V_{CB}



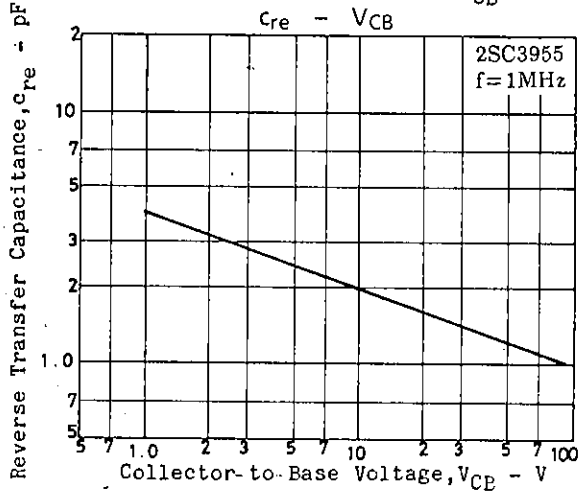
C_{ob} – V_{CB}



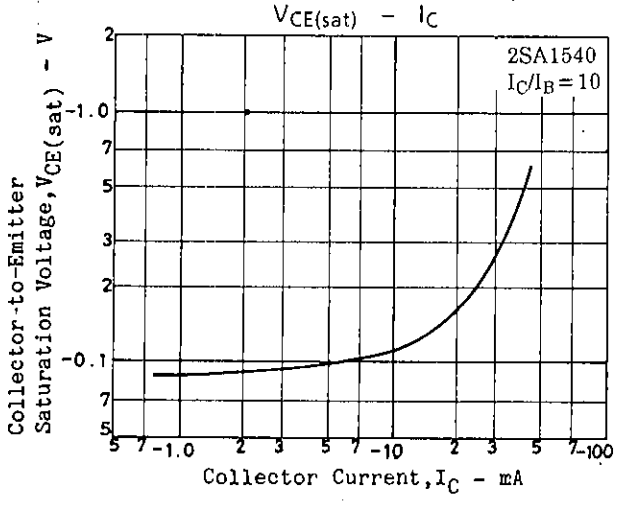
C_{re} – V_{CB}



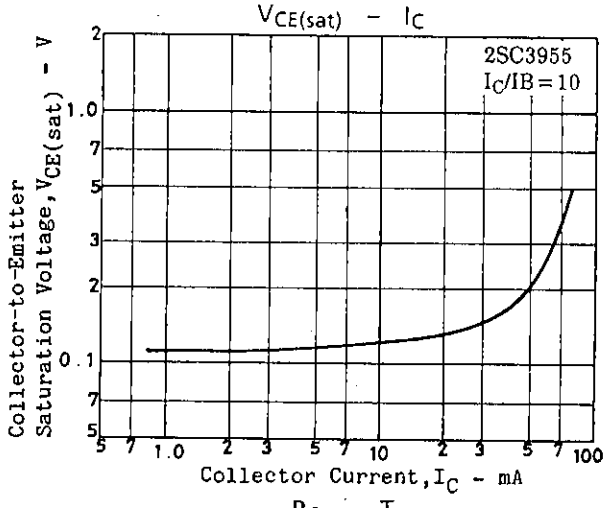
C_{re} – V_{CB}



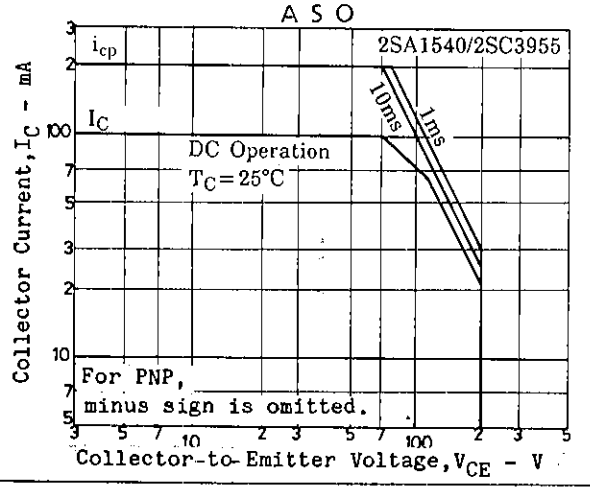
$V_{CE(sat)}$ – I_C



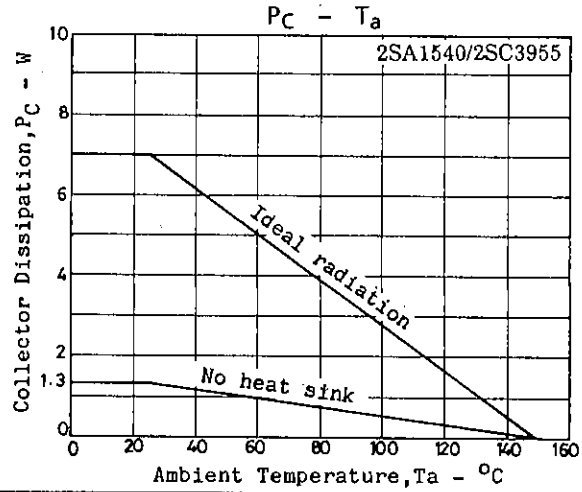
$V_{CE(sat)}$ – I_C



A S O



P_C – T_a



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