

SANYO	No.2435A	2SA1536/2SC3951
		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 f_T : $f_T = 600\text{MHz}$
- High breakdown voltage: $V_{CEO} = 70\text{Vmin}$
- Small reverse transfer capacitance and excellent high-frequency characteristic: $c_{re} = 1.9\text{pF/NPN}$, 2.4pF/PNP .
- Complementary PNP and NPN types
- Adoption of FBET process
- Micaless type

(): PNP

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

			unit
Collector-to-Base Voltage	V_{CBO}	(-)	80 V
Collector-to-Emitter Voltage	V_{CEO}	(-)	70 V
Emitter-to-Base Voltage	V_{EBO}	(-)	3 V
Collector Current	I_C	(-)	300 mA
Peak Collector Current	i_{cp}	(-)	600 mA
Collector Dissipation	P_C		1.3 W
		$T_c = 25^\circ\text{C}$	8 W
Junction Temperature	T_j		150 $^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +150 $^\circ\text{C}$

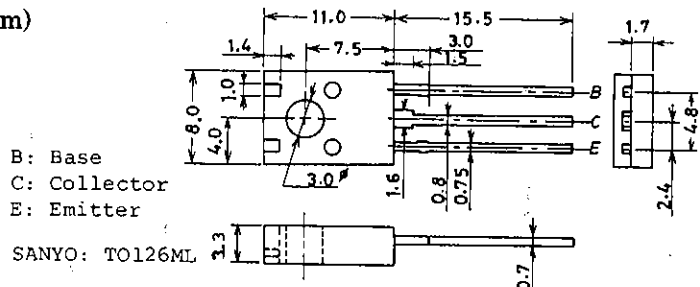
Electrical Characteristics at $T_a = 25^\circ\text{C}$

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = (-)60\text{V}, I_E = 0$			(-)	0.1 μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = (-)2\text{V}, I_C = 0$			(-)	1.0 μA
DC Current Gain	h_{FE1}	$V_{CE} = (-)10\text{V}, I_C = (-)50\text{mA}$	40*		320*	
	h_{FE2}	$V_{CE} = (-)10\text{V}, I_C = (-)200\text{mA}$	20			
Gain-Bandwidth Product	f_T	$V_{CE} = (-)10\text{V}, I_C = (-)100\text{mA}$		600		MHz
Output Capacitance	c_{ob}	$V_{CB} = (-)30\text{V}, f = 1\text{MHz}$		2.4		pF
				(3.1)		pF
Reverse Transfer Capacitance	c_{re}	$V_{CB} = (-)30\text{V}, f = 1\text{MHz}$		1.9		pF
				(2.4)		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)50\text{mA}, I_B = (-)5\text{mA}$			(-)	1.0 V
E-B Saturation Voltage	$V_{BE(sat)}$	$I_C = (-)50\text{mA}, I_B = (-)5\text{mA}$			(-)	1.0 V

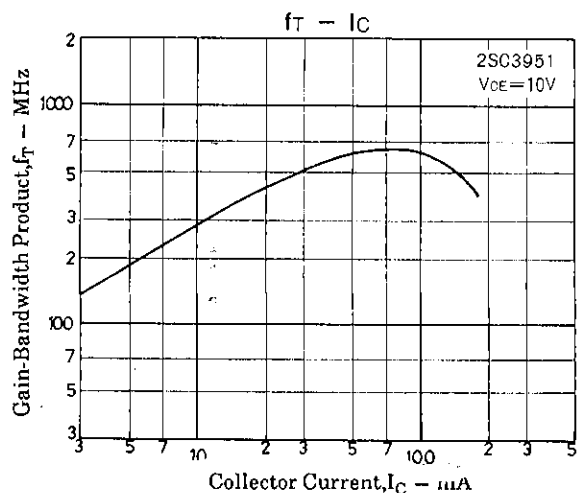
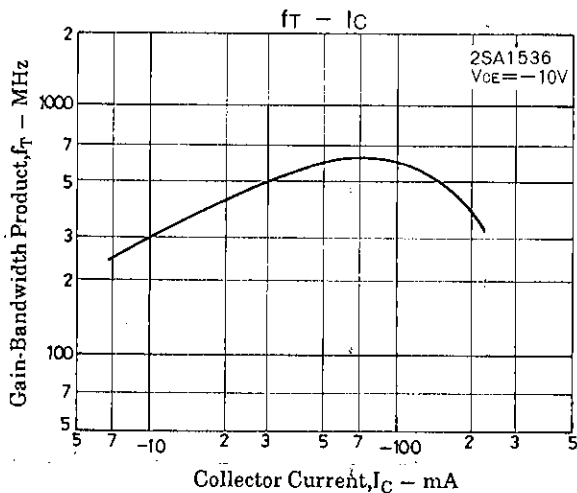
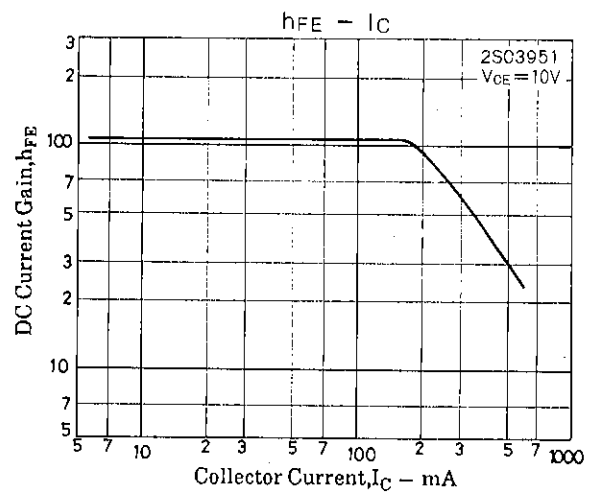
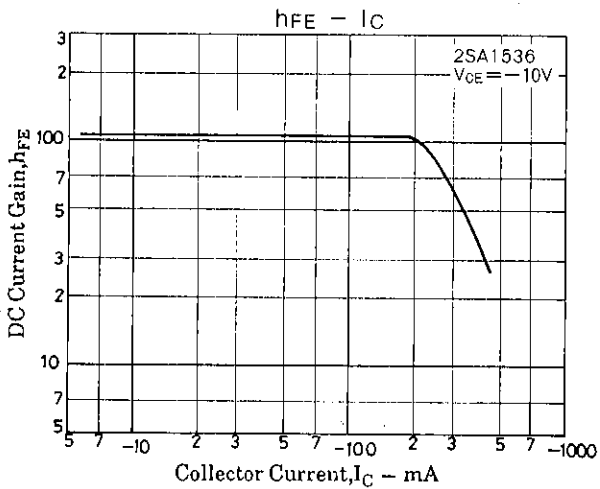
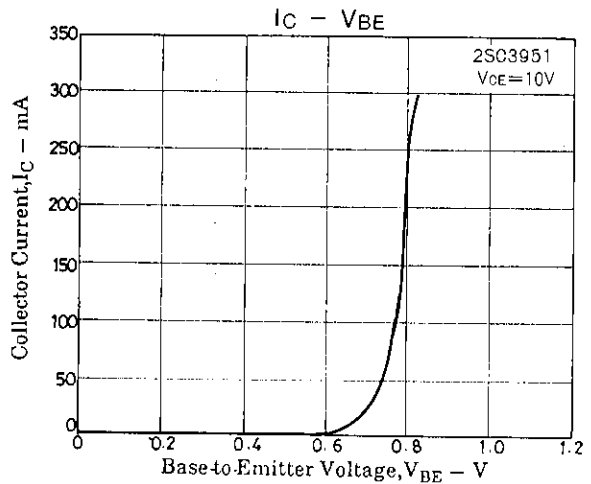
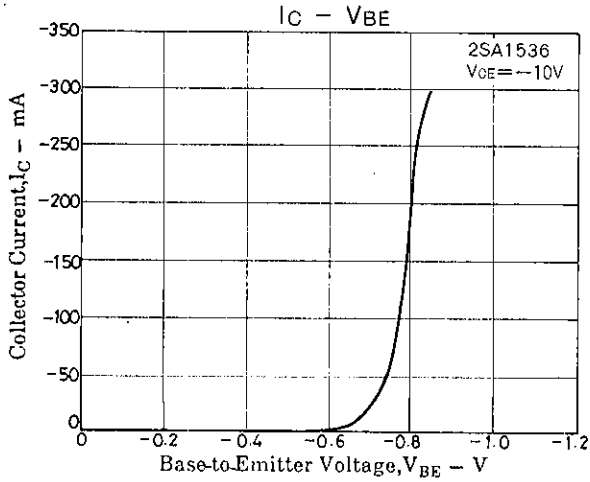
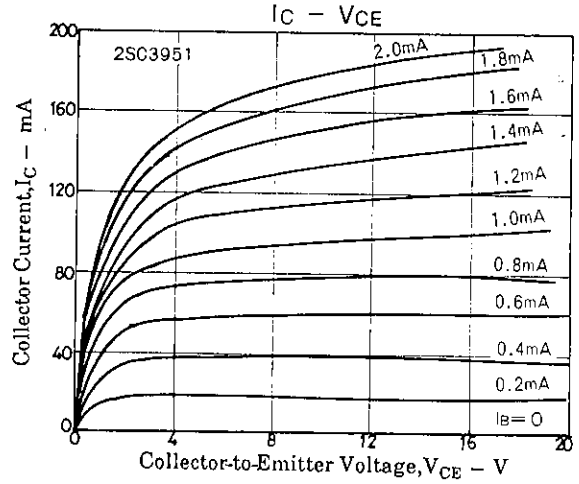
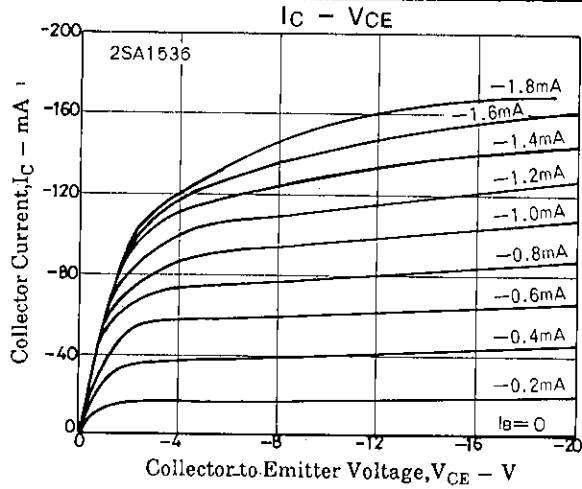
* h_{FE1} : The 2SA1536/2SC3951 are classified by 50mA h_{FE} as follows:

40	C	80	60	D	120	100	E	200	160	F	320
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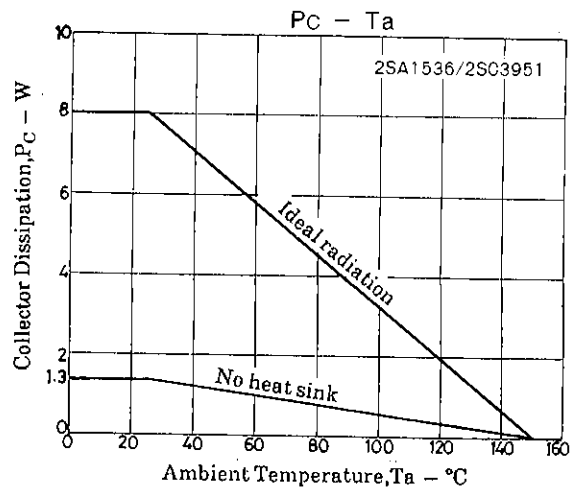
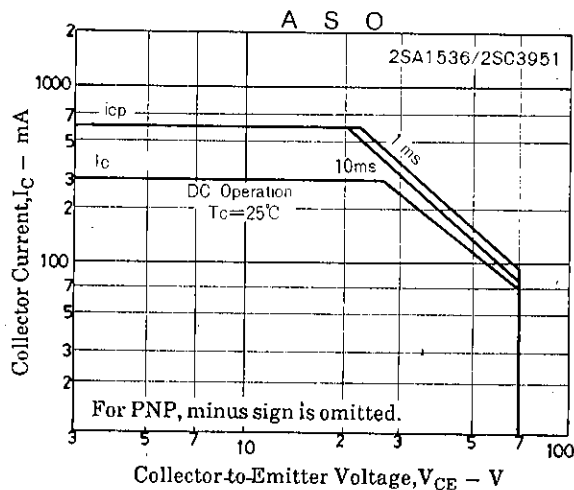
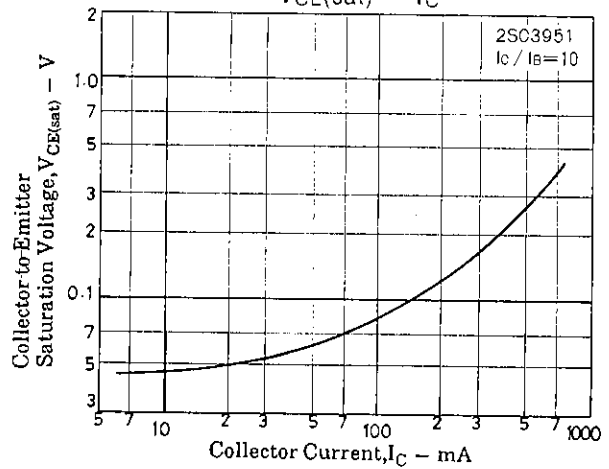
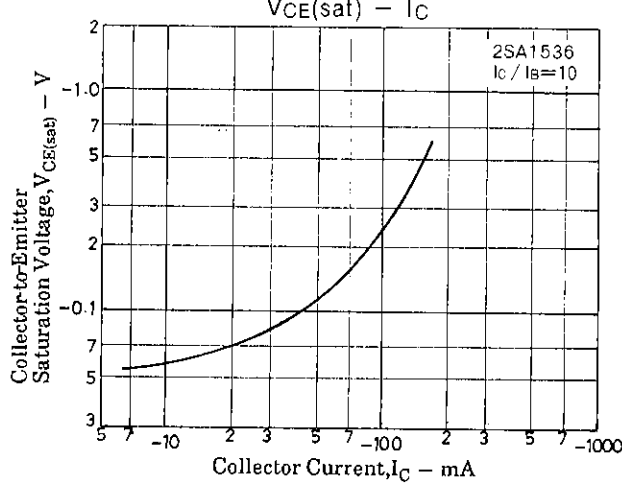
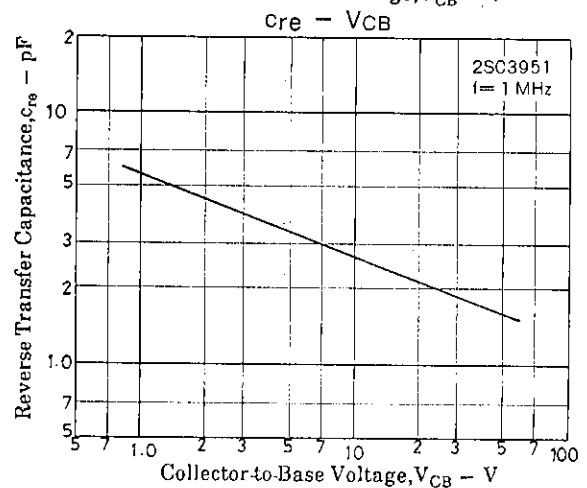
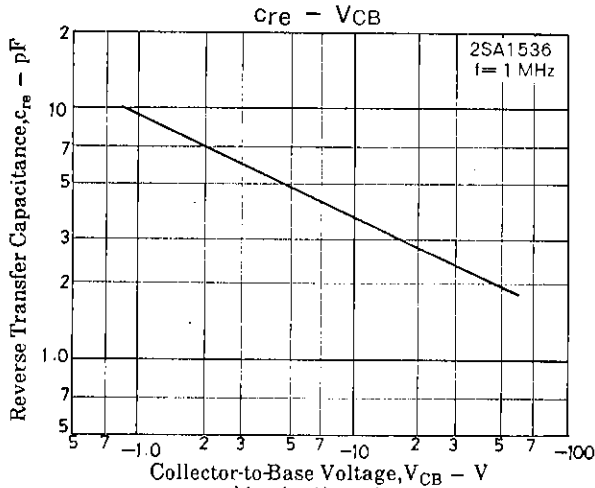
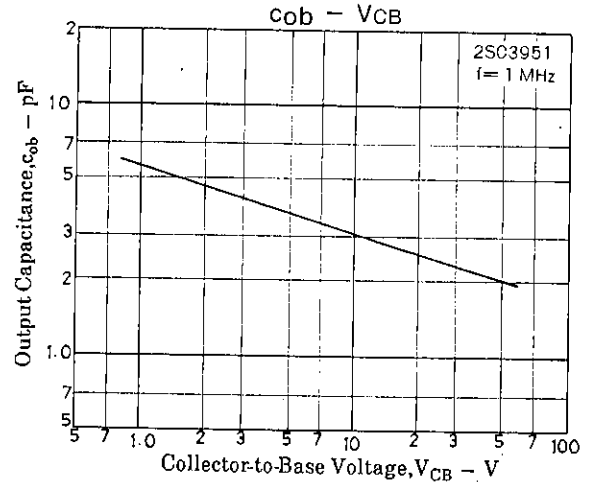
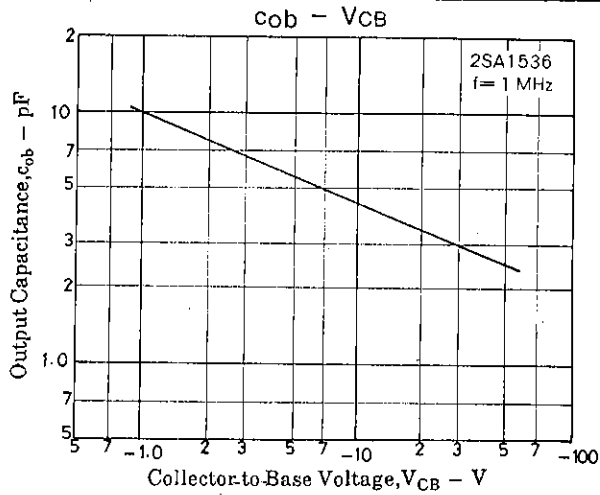
Package Dimensions 2042A
(unit: mm)



2SA1536/2SC3951



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