Ordering number: EN 2093

SANYO

No.2093

2SA1479/2SC3789

PNP/NPN Epitaxial Planar Type
Silicon Transistors
HIGH-DEFINITION CRT DISPLAY
VIDEO OUTPUT APPLICATIONS

Applications

- High-definition CRT display
- Color TV chroma output, high breakdown voltage drivers

Features

- High breakdown voltage ($V_{CEO} \geqq 300V$)
- Excellent high frequency characteristic (c_{re}=1.8pF(typ))
- Adoption of MBIT process
- No insulator required for mounting, which contributes to reducing the cost and the number of manufacturing processes.
- Plastic-covered heat sink facilitating high-density mounting
- Directly interchange able with TO-126 because the package is designed based on the conventional package dimensions

( ): 2SA1479

Absolute Maximum Ratings at Ta=25°C

				unit
Collector-to-Base Voltage	V_{CBO}		(-)300	V
Collector-to-Emitter Voltage	V_{CEO}		(-)300	V
Emitter-to-Base Voltage	V_{EBO}		(-)5	V
Collector Current	I_C		(-)100	mA
Peak Collector Current	i_{cp}		(-)200	mA
Collector Dissipation	P_C		1.5	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}=(-)200V, I_E=0			(-)0.1	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=(-)4V, I_C=0			(-)0.1	μA
DC Current Gain	h_{FE}	V_{CE}=(-)10V, I_C=(-)10mA	40*		320*	
Gain-Bandwidth Product	f_T	V_{CE}=(-)30V, I_C=(-)10mA		70		MHz
C-E Saturation Voltage	$V_{CE(sat)}$	I_C=(-)20mA, I_B=(-)2mA			(-)0.6	V
B-E Saturation Voltage	$V_{BE(sat)}$	I_C=(-)20mA, I_B=(-)2mA			(-)1.0	V

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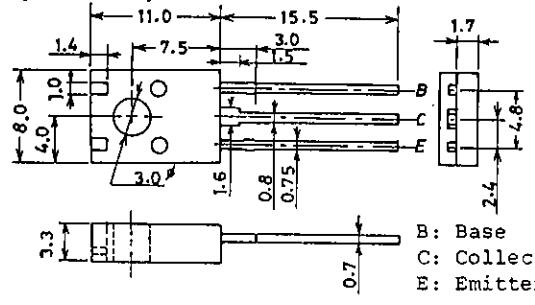
Package Dimensions 2042A
(unit: mm)



SANYO: TO126ML

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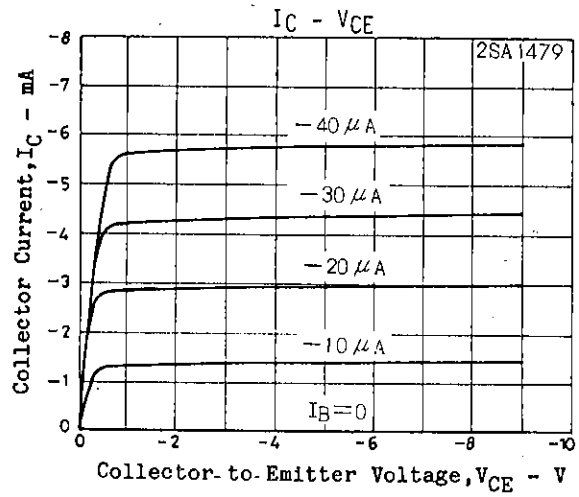
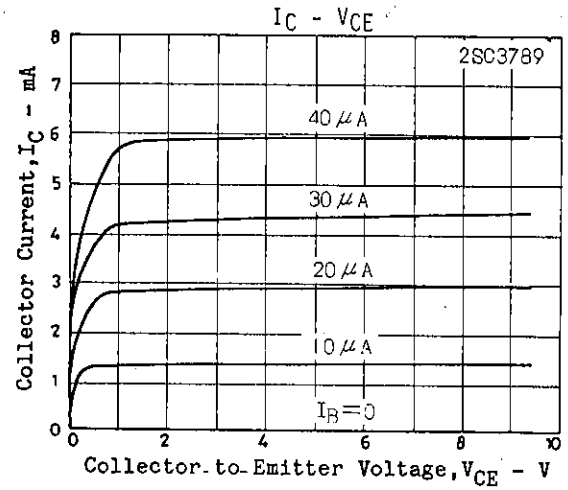
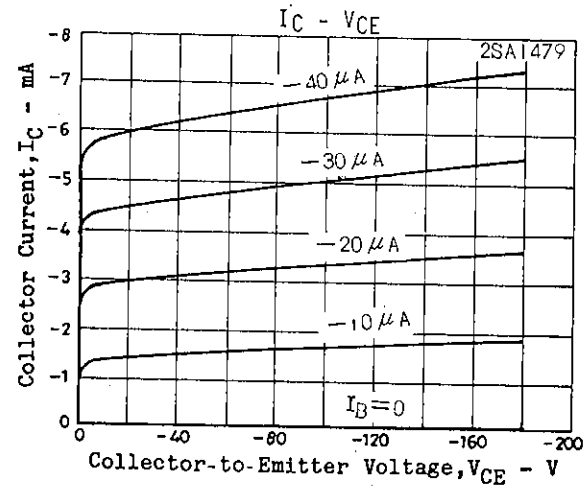
			min	typ	max	unit
C-B Breakdown Voltage	$V_{(BR)CBO}$	I_C=(-)10μA, I_E=0	(-)300			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	I_E=(-)1mA, R_{BE}=∞	(-)300			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	I_E=(-)10μA, I_C=0	(-)5			V
Output Capacitance	c_{ob}	V_{CB}=(-)30V, f=1MHz		2.6 (3.1)		pF
Reverse Transfer Capacitance	c_{re}	V_{CB}=(-)30V, f=1MHz		1.8 (2.3)		pF

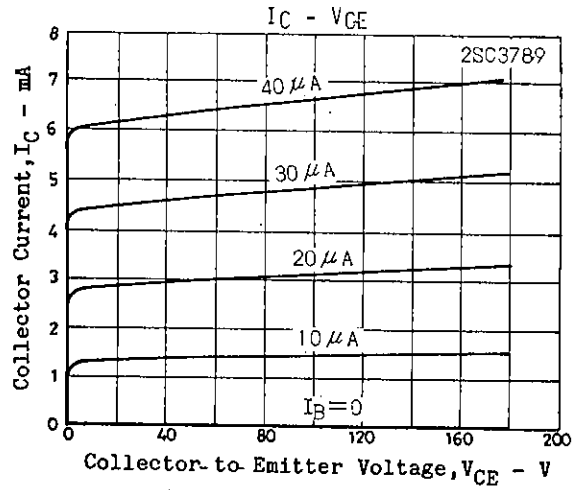
*: The 2SA1479/2SC3789 are classified by 10mA h_{FE} as follows:

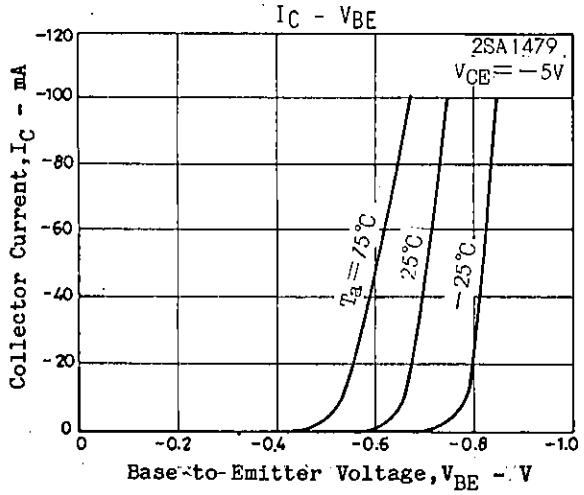
40 C 80	60 D 120	100 E 200	160 F 320

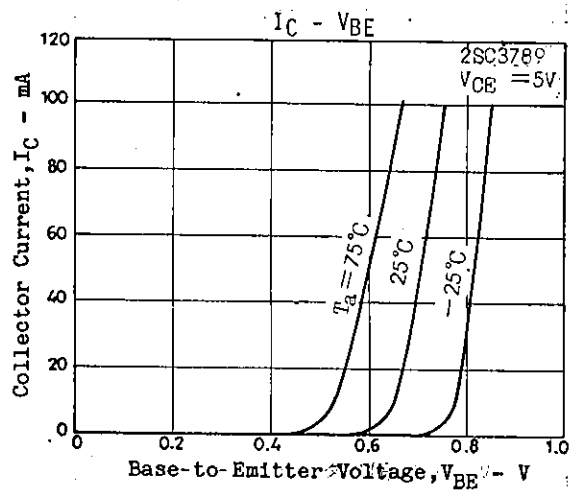


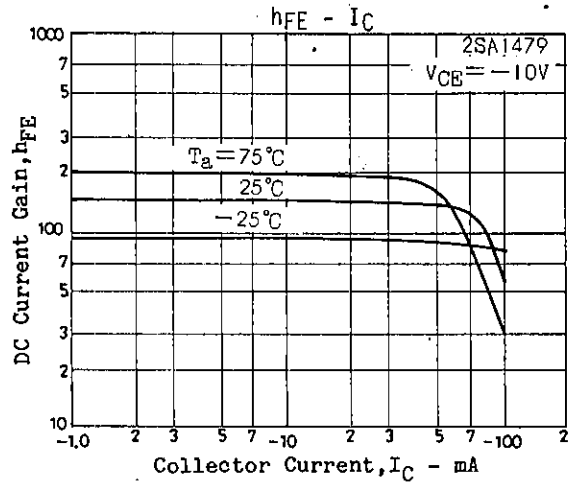


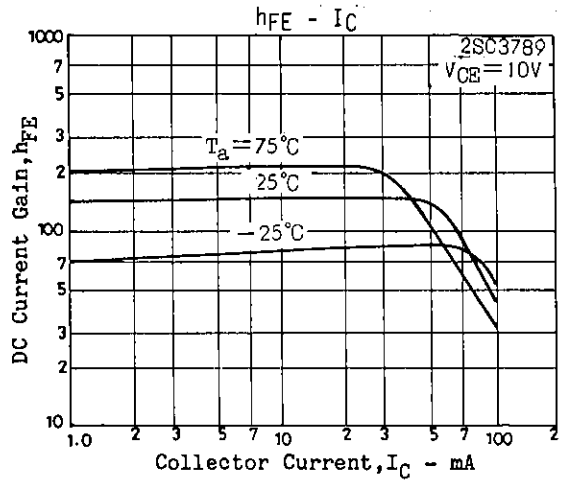


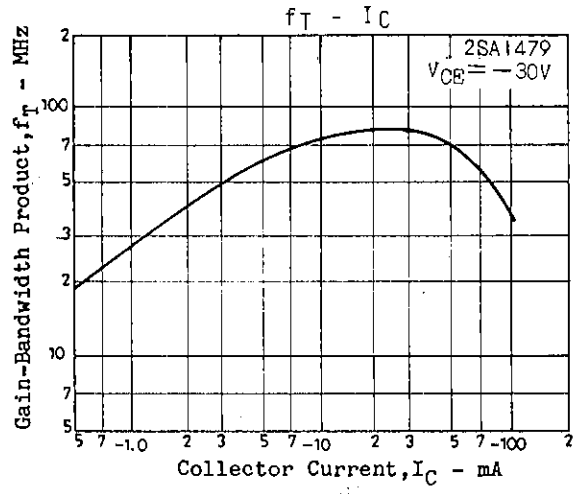


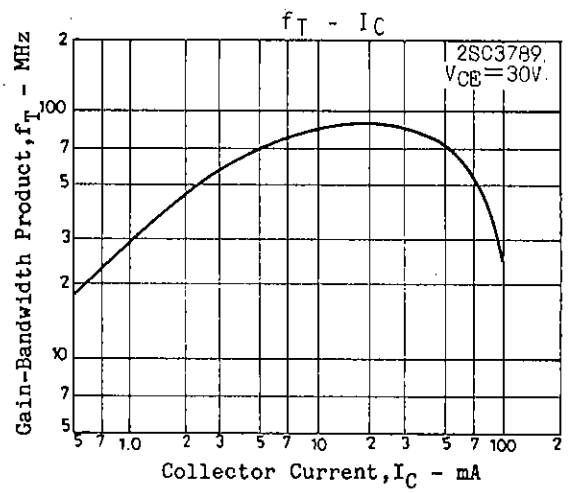


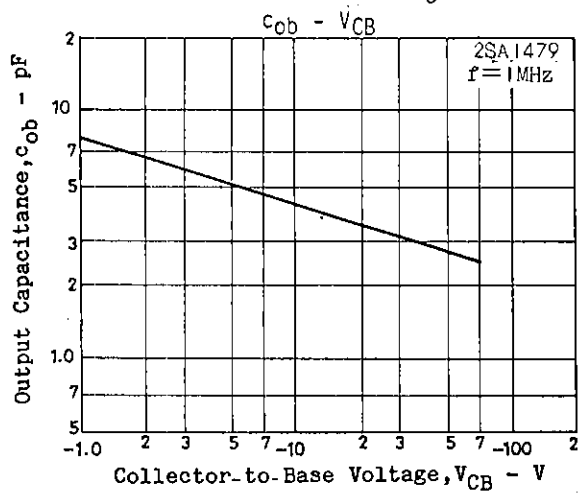


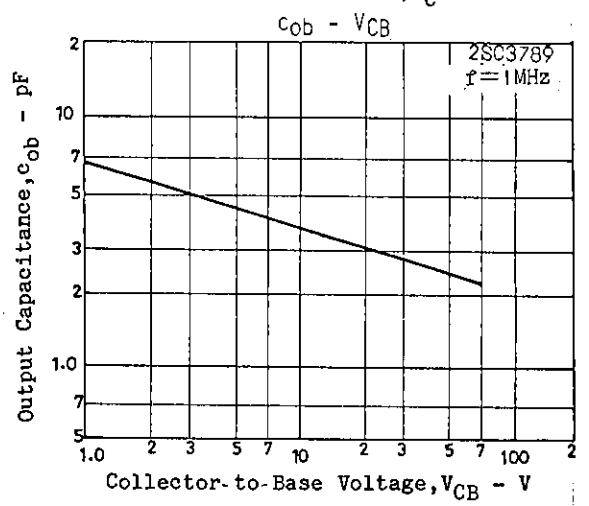

h_{FE} - I_C
2SA1479
V_{CE}=−10V
T_a=75°C
25°C
−25°C
DC Current Gain, h_{FE}
Collector Current, I_C - mA

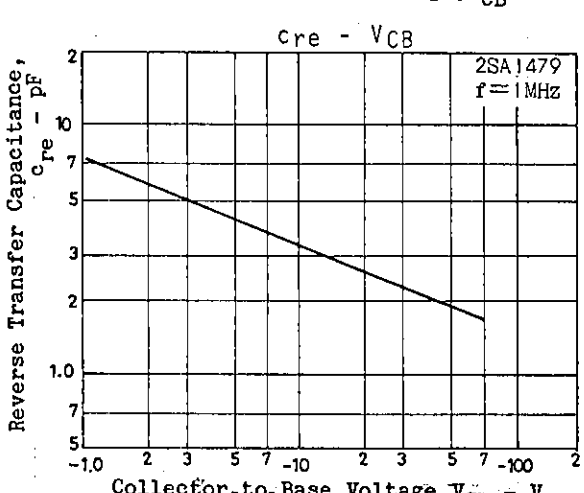

h_{FE} - I_C
2SC3789
V_{CE}=10V
T_a=75°C
25°C
−25°C
DC Current Gain, h_{FE}
Collector Current, I_C - mA

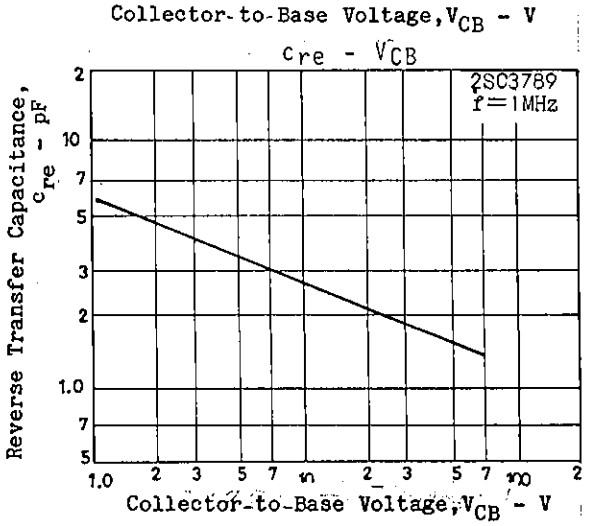

f_T - I_C
2SA1479
V_{CE}=−30V
Gain-Bandwidth Product, f_T - MHz
Collector Current, I_C - mA

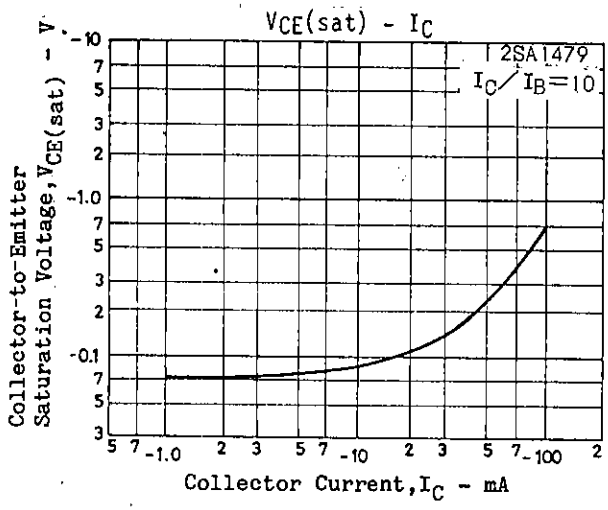

f_T - I_C
2SC3789
V_{CE}=30V
Gain-Bandwidth Product, f_T - MHz
Collector Current, I_C - mA

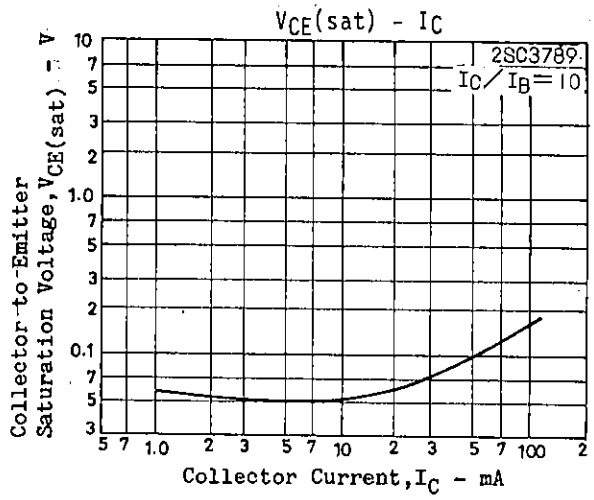

C_{ob} - V_{CB}
2SA1479
f=1MHz
Output Capacitance, C_{ob} - pF
Collector-to-Base Voltage, V_{CB} - V

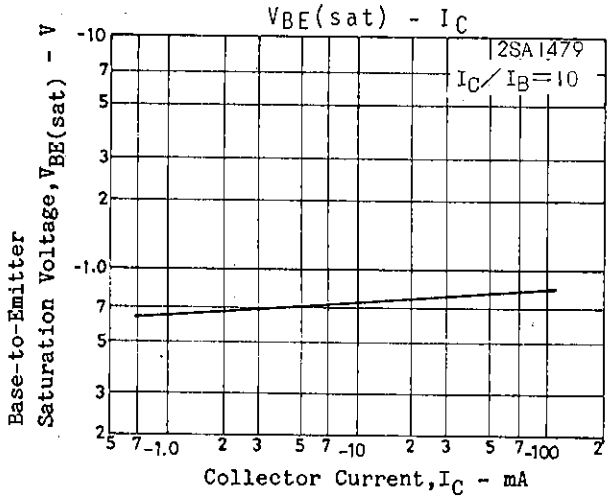

C_{ob} - V_{CB}
2SC3789
f=1MHz
Output Capacitance, C_{ob} - pF
Collector-to-Base Voltage, V_{CB} - V

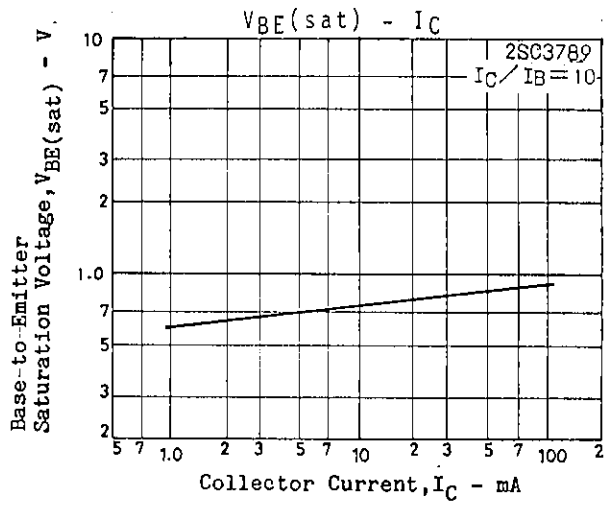

C_{re} - V_{CB}
2SA1479
f=1MHz
Reverse Transfer Capacitance, C_{re} - pF
Collector-to-Base Voltage, V_{CB} - V

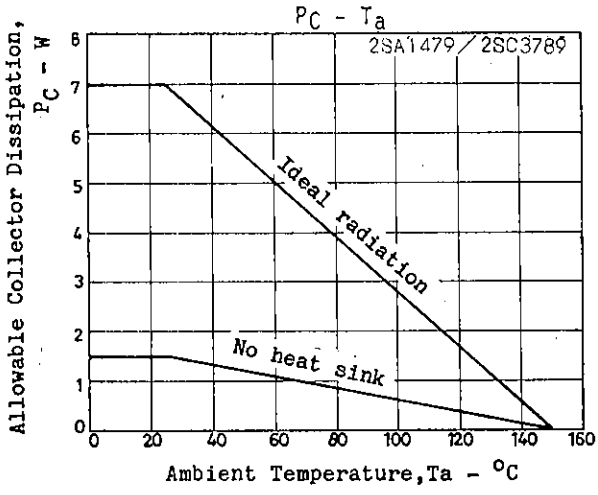

C_{re} - V_{CB}
2SC3789
f=1MHz
Reverse Transfer Capacitance, C_{re} - pF
Collector-to-Base Voltage, V_{CB} - V

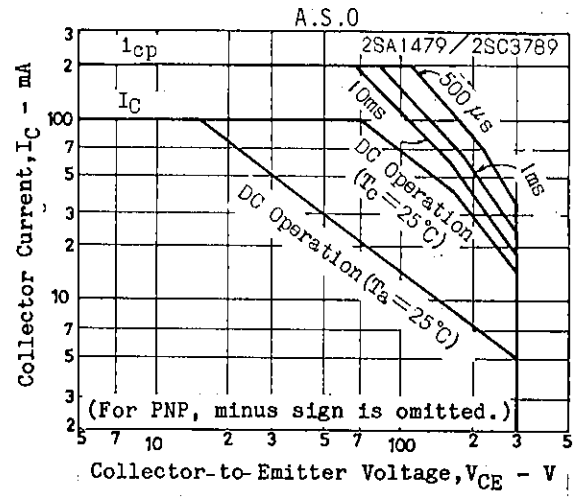












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