



No.3017

2SA1696/2SC4473

PNP/NPN Epitaxial Planar Silicon Transistor
High-Definition CRT Display
Video Output Applications

Applications

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

Features

- High f_T : $f_T = 500\text{MHz}$
- High breakdown voltage: $V_{CEO} = 120\text{Vmin}$
- Small reverse transfer capacitance and excellent high frequency characteristic: $C_{re} = 2.7\text{pF/NPN}$, 4.0pF/PNP .
- Complementary PNP and NPN types.
- Adoption of FBET process.
- Micaless type.

() : PNP

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

Parameter	Symbol	Value	unit
Collector-to-Base Voltage	V_{CBO}	(-) 120	V
Collector-to-Emitter Voltage	V_{CEO}	(-) 120	V
Emitter-to-Base Voltage	V_{EBO}	(-) 3	V
Collector Current	I_C	(-) 400	mA
Collector Current (Pulse)	I_{CP}	(-) 600	mA
Collector Dissipation	P_C	1.8	W
		10	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to $+150$	$^\circ\text{C}$

$T_c = 50^\circ\text{C}$

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

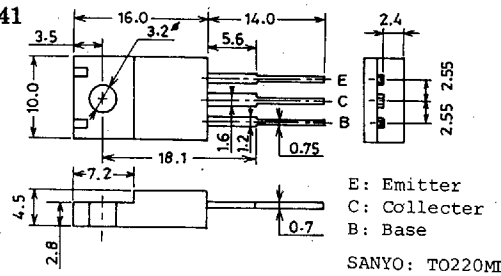
Parameter	Symbol	Test Conditions	min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = (-)80\text{V}, I_E = 0$			(-) 0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = (-)2\text{V}, I_C = 0$			(-) 1.0	μA
DC Current Gain	h_{FE1}	$V_{CE} = (-)10\text{V}, I_C = (-)50\text{mA}$	40^*		320^*	
	h_{FE2}	$V_{CE} = (-)10\text{V}, I_C = (-)200\text{mA}$	20			
Gain-Bandwidth Product	f_T	$V_{CE} = (-)10\text{V}, I_C = (-)50\text{mA}$		400		MHz
Output Capacitance	C_{ob}	$V_{CB} = (-)30\text{V}, f = 1\text{MHz}$		3.1		pF
				(4.4)		pF
Reverse Transfer Capacitance	C_{re}	$V_{CB} = (-)30\text{V}, f = 1\text{MHz}$		2.7		pF
				(4.0)		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

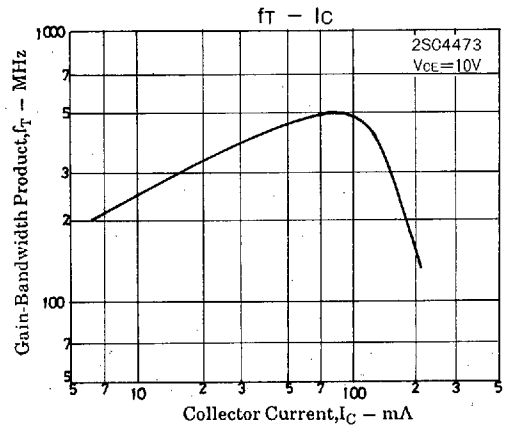
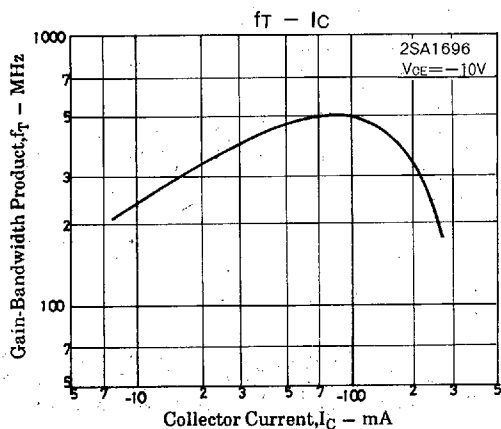
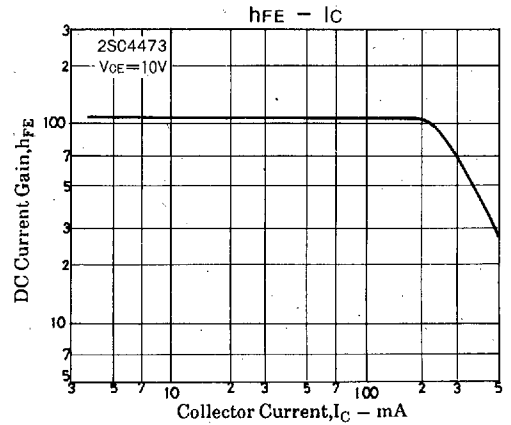
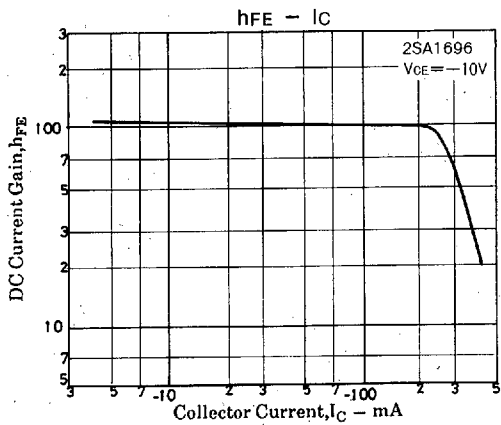
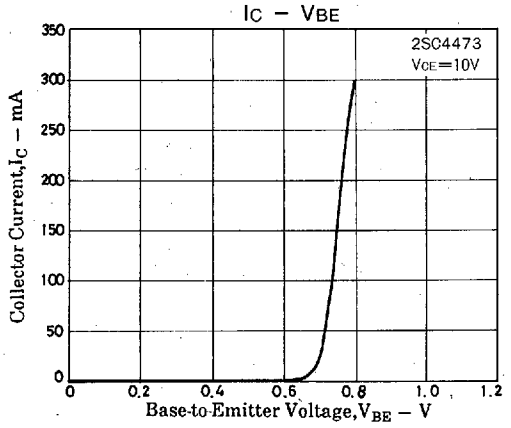
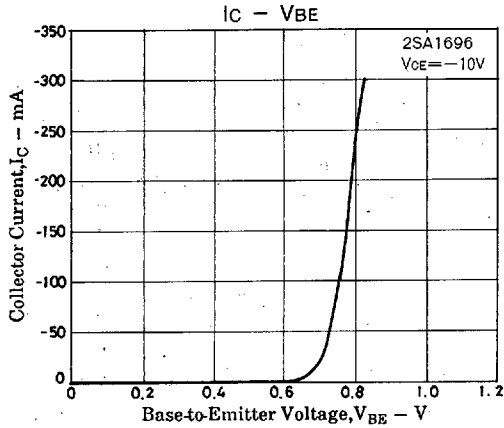
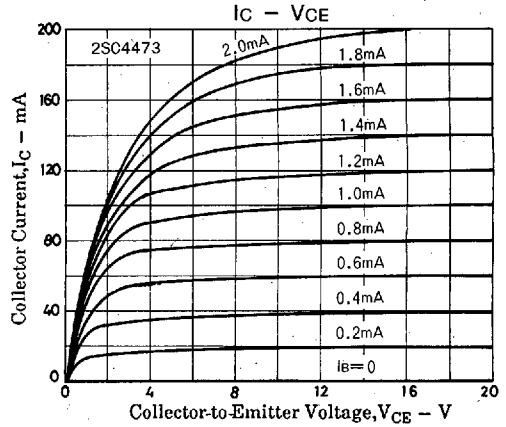
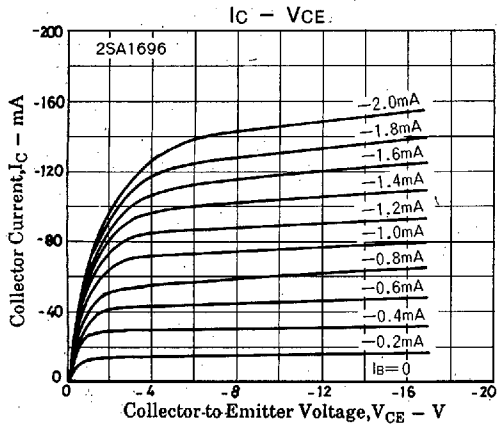
* h_{FE1} : The 2SA1696/2SC4473 are classified by 50mA h_{FE} as follows:

40	C	80	60	D	120	100	E	200	160	F	320
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Package Dimensions 2041

(unit: mm)





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