

High-Definition CRT Display, Video Output Applications

Applications

· High-definition CRT display video output, wide-band amplifier.

Features

- · High f_T : f_T =500MHz.
- · High breakdown voltage : V_{CEO}=120V min.
- · Small reverse transfer capacitance and excellent high frequency characteristic :

 C_{re} =2.7pF/NPN, 4.0pF/PNP.

- · Complementary PNP and NPN types.
- · Adoption of FBET process.
- · Micaless type.

(): 2SA1696

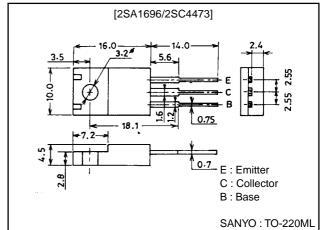
Specifications

Absolute Maximum Ratings at Ta = 25°C

Package Dimensions

unit:mm

2041



Parameter	Symbol	Conditions	Ratings	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	IC		(-)400	mA
Collector Current (Pulse)	I _{CP}		(-)600	mA
Collector Dissipation	PC		1.8	W
		Tc=50°C	10	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions		Ratings			
Falametei	Syllibol	Conditions	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 _{FE} 1	V _{CE} =(-)10V, I _C =(-)10mA	40*		320*		
	h _{FE} 2	V _{CE} =(-)10V, I _C =(-)100mA	20				
Gain-Bandwidth Product	f _T	V _{CE} =(-)30V, I _C =(-)50mA		300		MHz	

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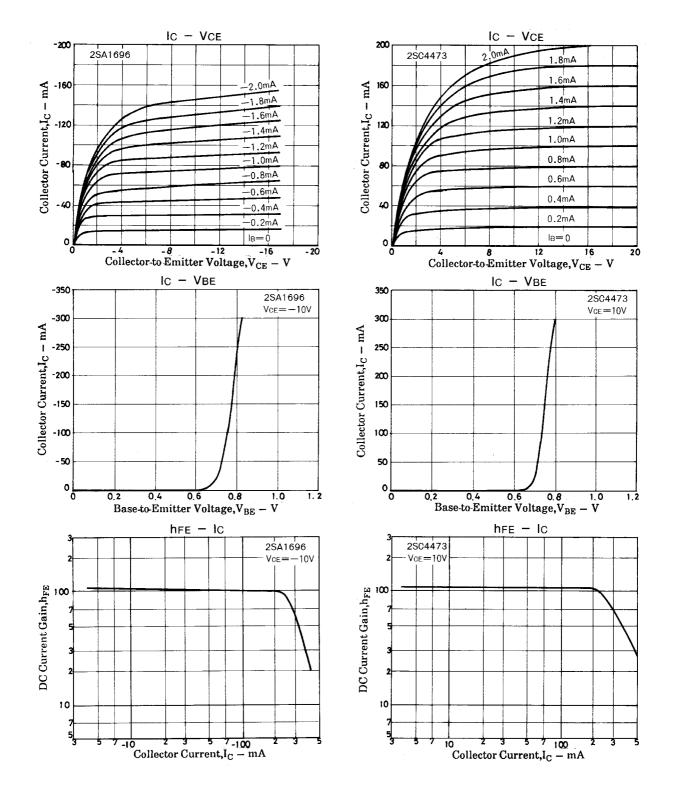
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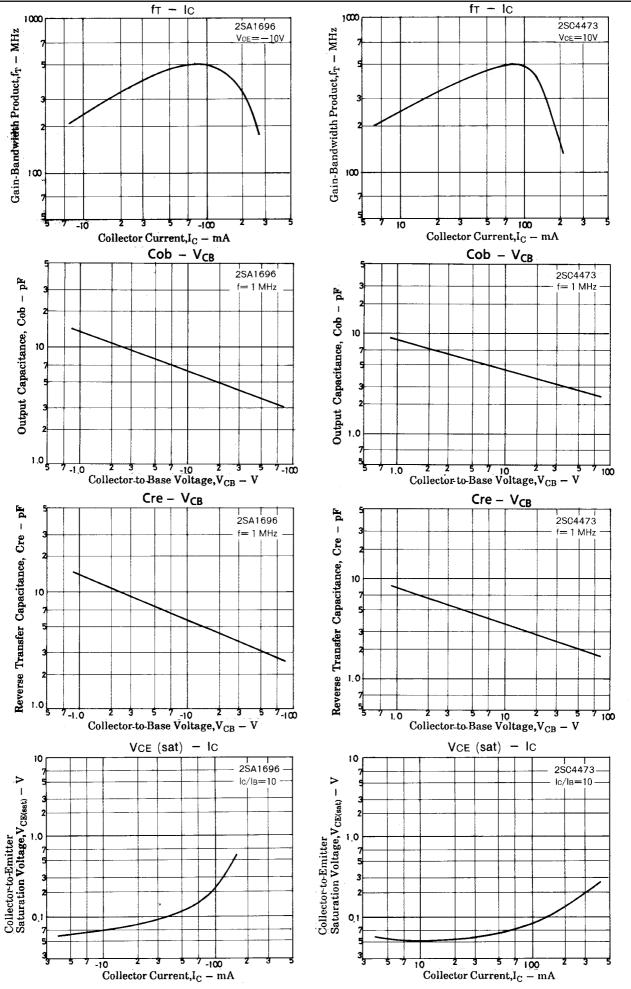
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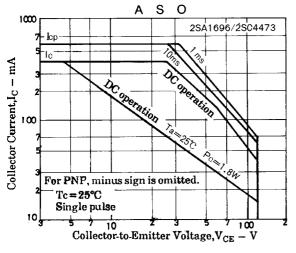
Parameter	Symbol	Conditions		Unit		
Falanetei	1 drameter Symbol Conditions		min	typ	max	Offic
Output Capacitance	C _{ob}	V _{CB} =(-)30V, f=1MHz		3.1		pF
				(4.4)		pF
Reverse Transfer Capacitance	C _{re}	V _{CB} =(-)30V, f=1MHz		2.7		pF
				(4.0)		pF
Collector-to-Emitter Saturation Voltage	V _{CE(sat)}	I _C =(-)50mA, I _B =(-)5mA			(-)1.0	V
Emitter-to-Base Saturation Voltage	V _{BE(sat)}	I _C =(-)50mA, I _B =(-)5mA			(-)1.0	V

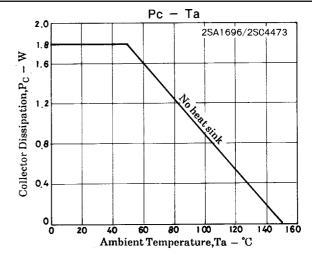
^{*} $h_{\mbox{\scriptsize FE}}1$: The 2SA1696/2SC4473 are classified by 50mA $h_{\mbox{\scriptsize FE}}$ as follows :

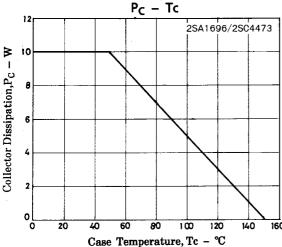
40	С	80	60	D	120	100	Е	200	160	F	320	_











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