



2SA1852 / 2SC4826

High Definition CRT Display Video Output Applications

Applications

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

Features

- Adoption of FBET process.
- High f_T : $f_T=300\text{MHz}(\text{typ})$.
- High breakdown voltage : $V_{CEO}=200\text{V}$.
- Small reverse transfer capacitance and excellent high-frequency characteristic : $C_{re}=1.5\text{pF} / \text{NPN}, 1.8\text{pF} / \text{PNP}$.
- Shipped in reel tape container to facilitate automatic mounting.

Specifications

() : 2SA1852

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CB0}		(-)200	V
Collector-to-Emitter Voltage	V_{CEO}		(-)200	V
Emitter-to-Base Voltage	V_{EBO}		(-)3	V
Collector Current	I_C		(-)100	mA
Collector Current (Pulse)	I_{CP}		(-)200	mA
Base Current	I_B		(-)20	mA
Collector Dissipation	P_C		1.3	W
Junction Temperature	T_J		150	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$

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

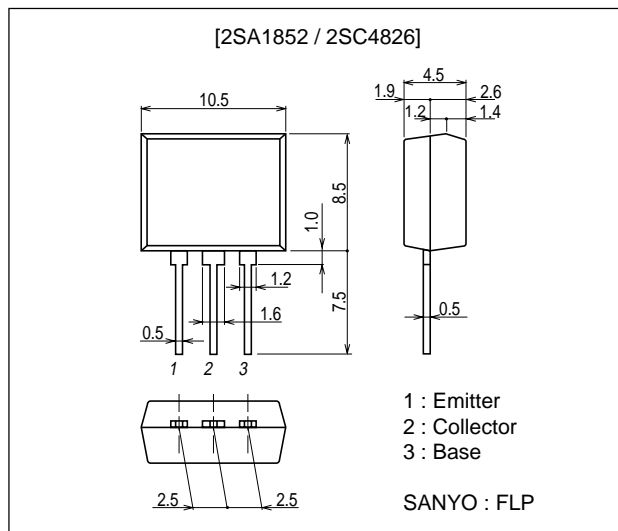
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=-150\text{V}, I_E=0$			(-)0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=-2\text{V}, I_C=0$			(-)1.0	μA

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Package Dimensions

unit : mm

2084B



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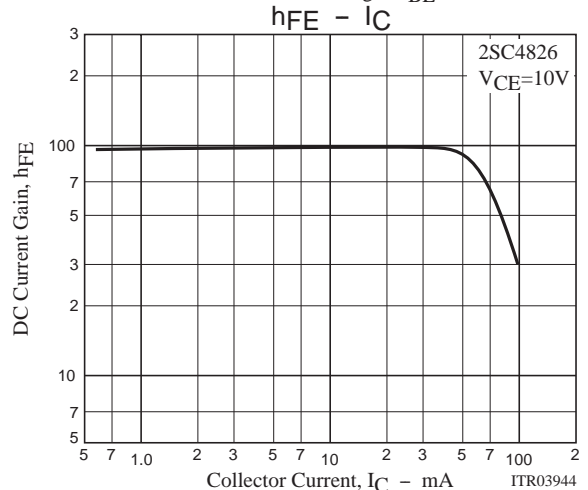
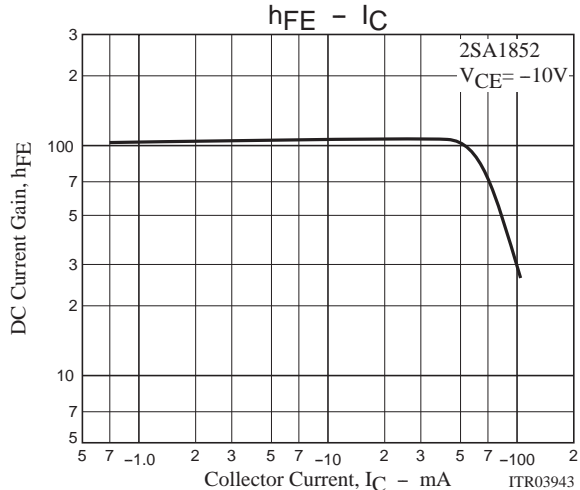
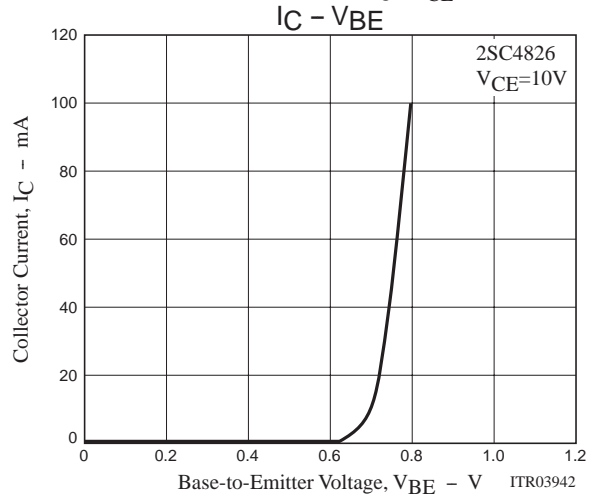
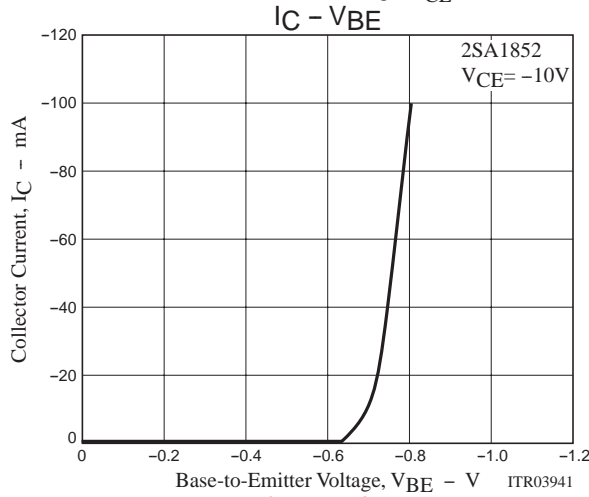
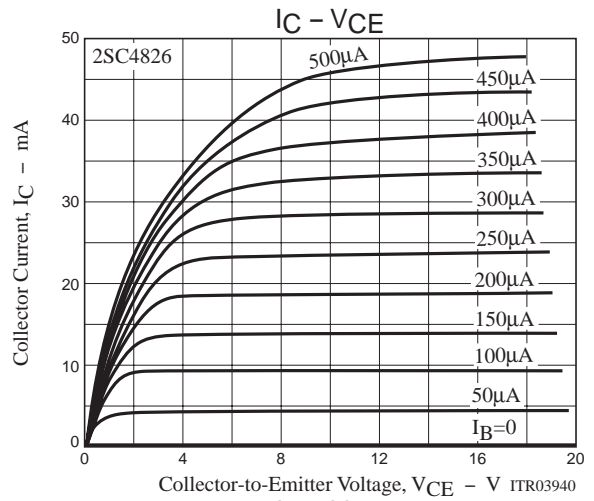
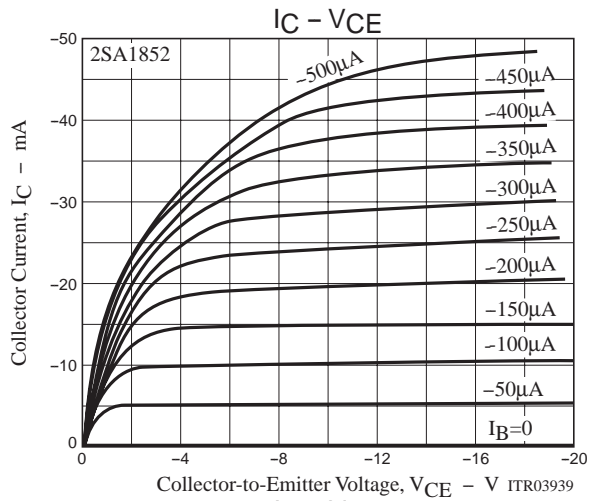
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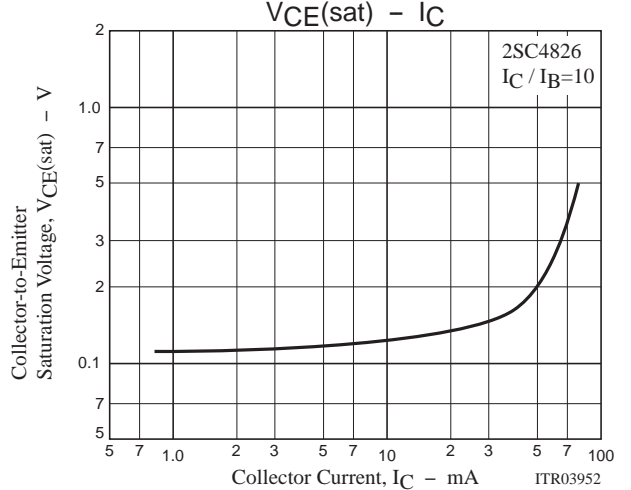
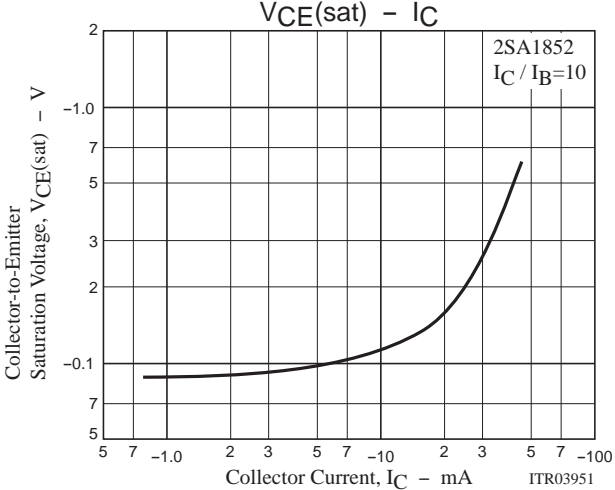
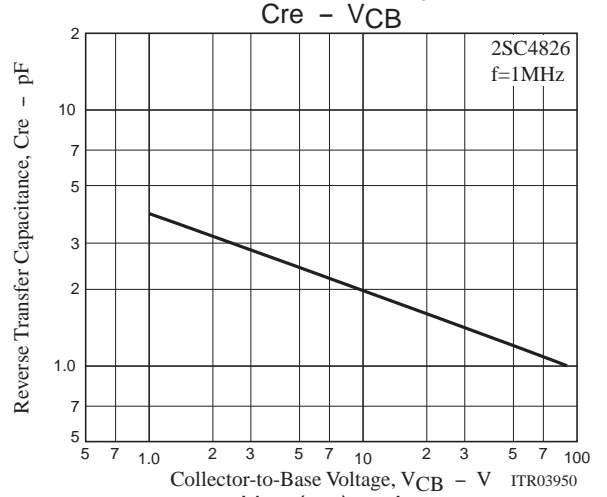
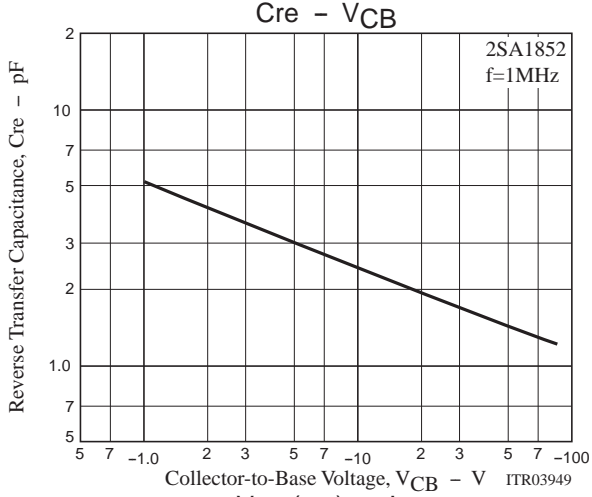
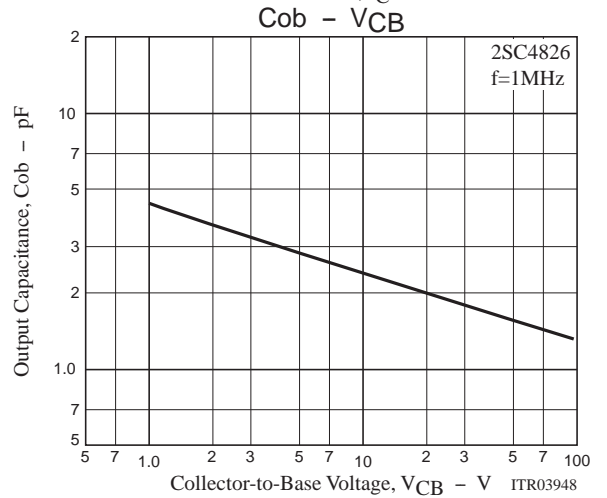
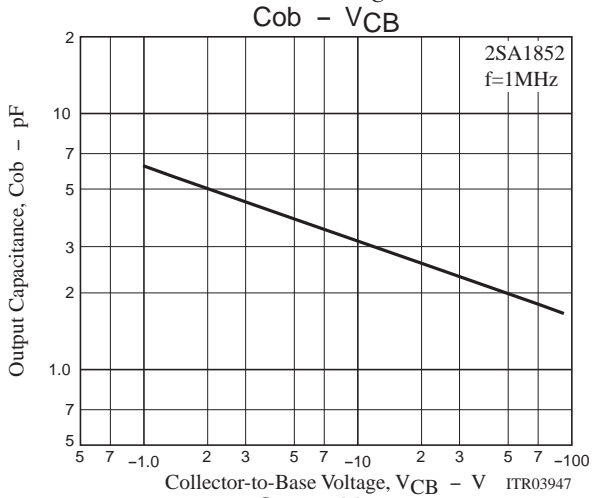
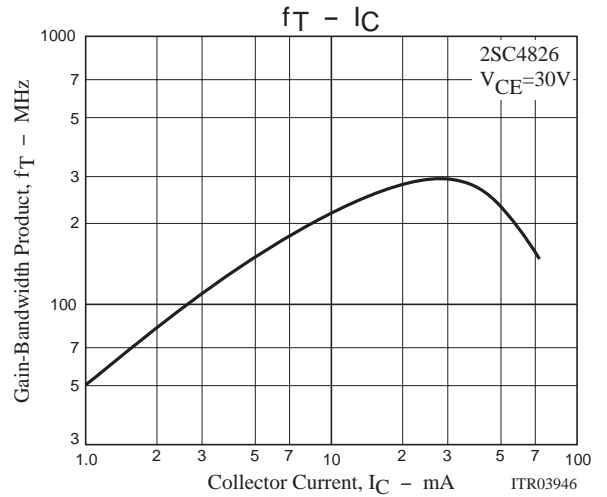
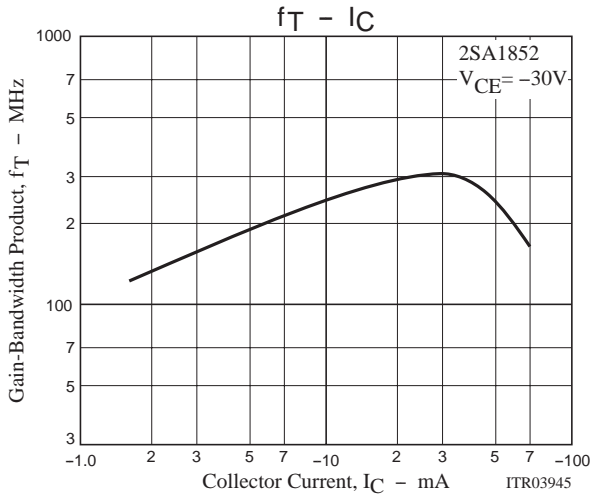
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
DC Current Gain	h_{FE1}	$V_{CE}=(-)10V, I_C=(-)10mA$	60*		320*	
	h_{FE2}	$V_{CE}=(-)10V, I_C=(-)50mA$	20			
Gain-Bandwidth Product	f_T	$V_{CE}=(-)30V, I_C=(-)30mA$		300		MHz
Output Capacitance	C_{ob}	$V_{CB}=(-)30V, f=1MHz$		(2.4)1.9		pF
Reverse Transfer Capacitance	C_{re}	$V_{CB}=(-)30V, f=1MHz$		(1.8)1.5		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)20mA, I_B=(-)2mA$			(-)-1.0	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)20mA, I_B=(-)2mA$			(-)-1.0	V

* : The 2SA1852 / 2SC4826 are classified by 10mA h_{FE} as follows :

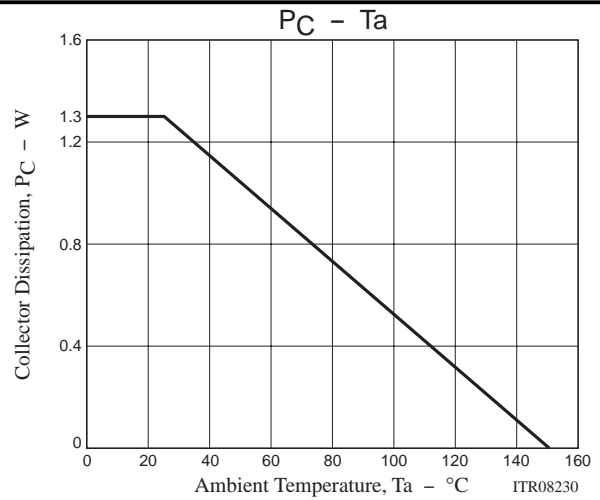
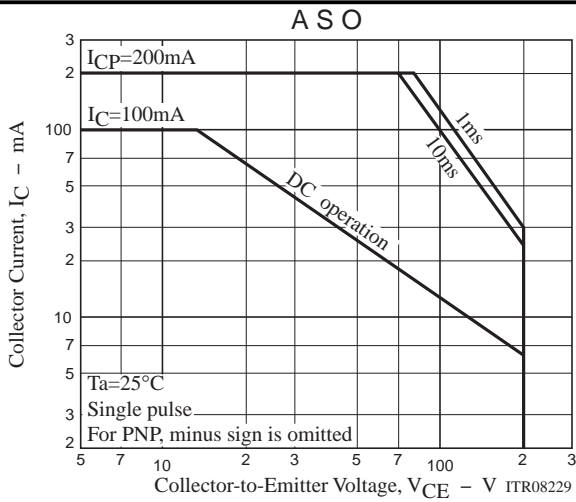
Rank	D	E	F
h_{FE}	60 to 120	100 to 200	160 to 320



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