



# 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 $T_a=25^\circ\text{C}$

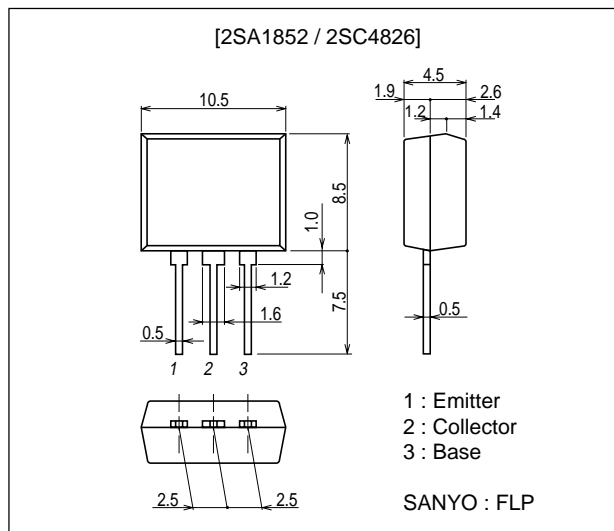
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	$I_{CBO}$	$V_{CB}=-150\text{V}, I_E=0$			(-)0.1	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=-2\text{V}, I_C=0$			(-)1.0	$\mu\text{A}$

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### Package Dimensions

unit : mm

2084B



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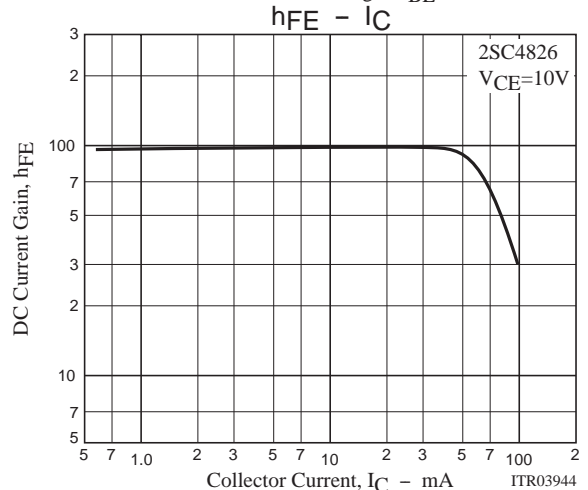
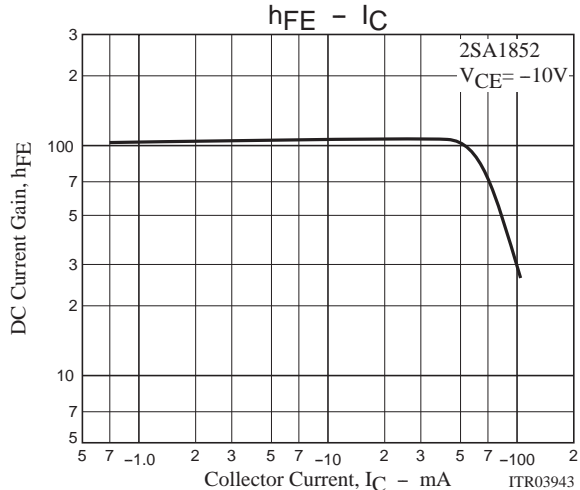
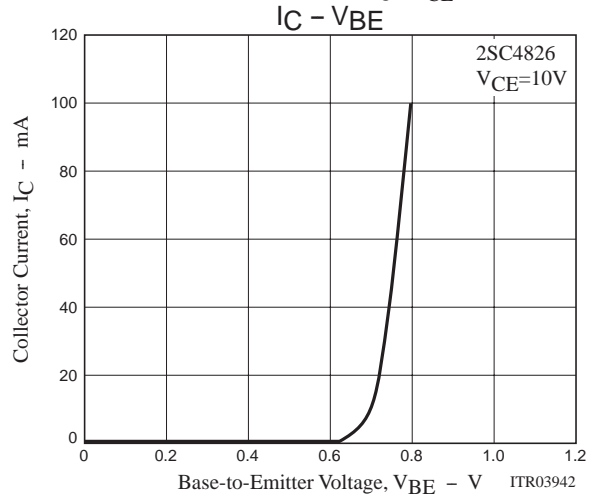
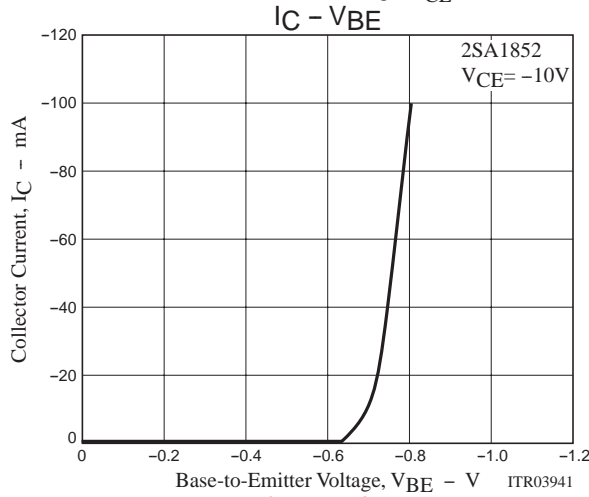
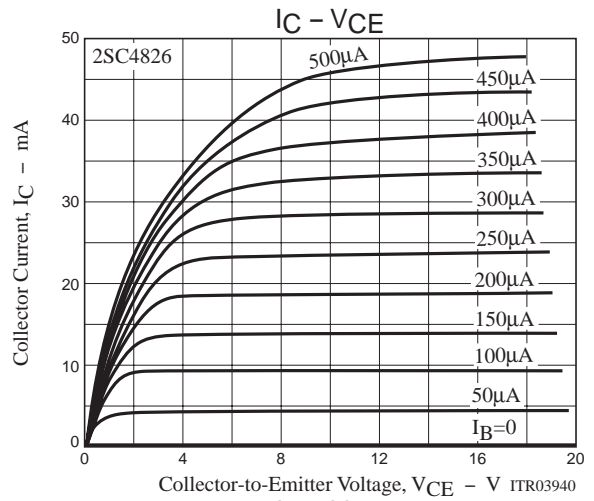
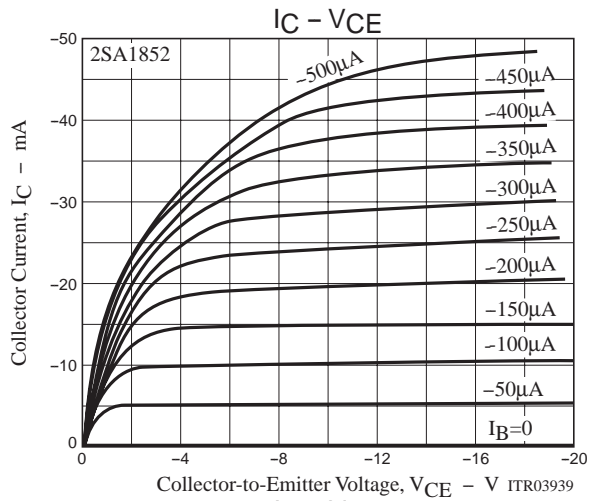
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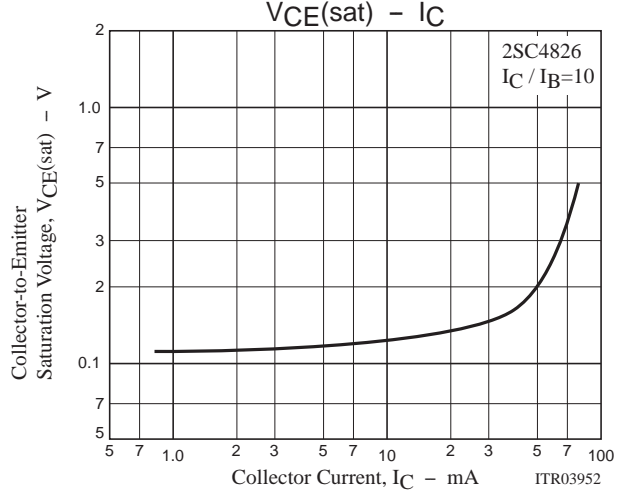
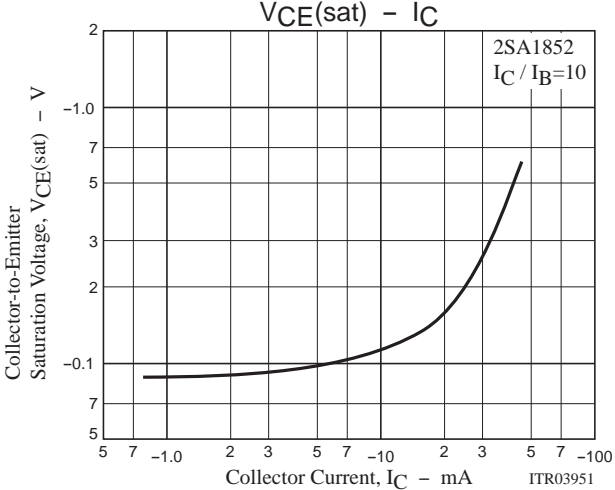
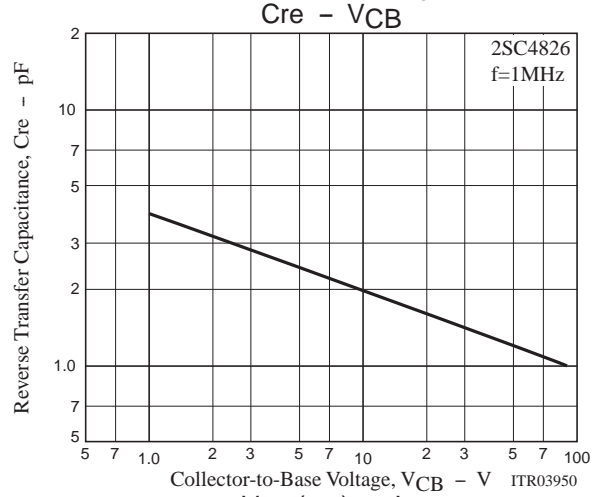
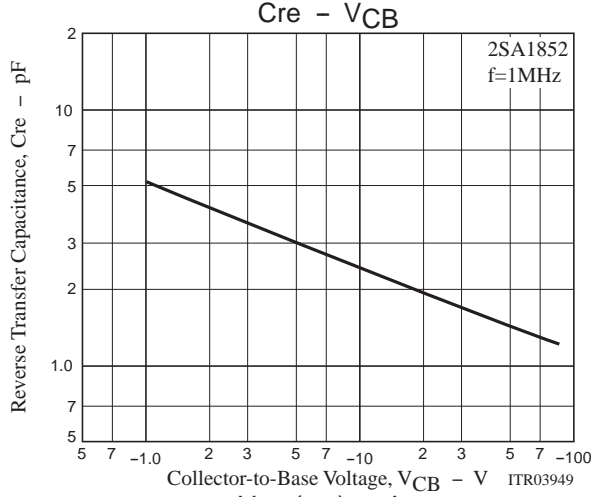
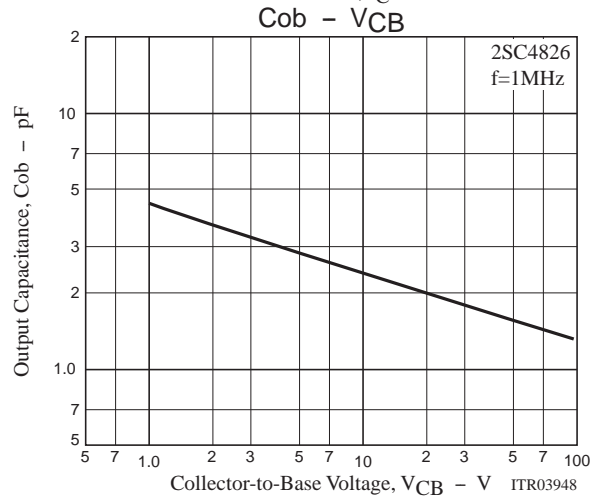
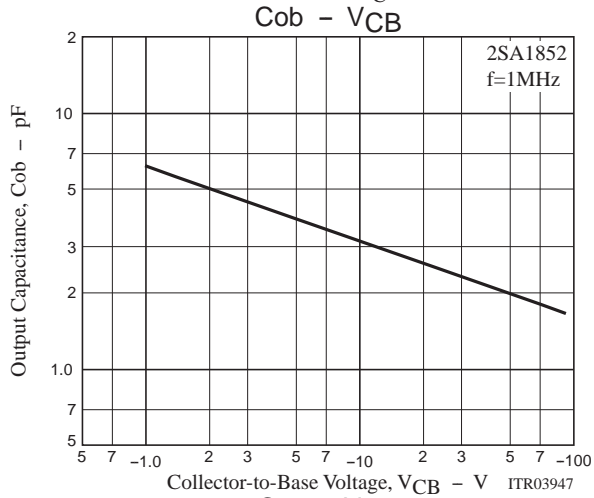
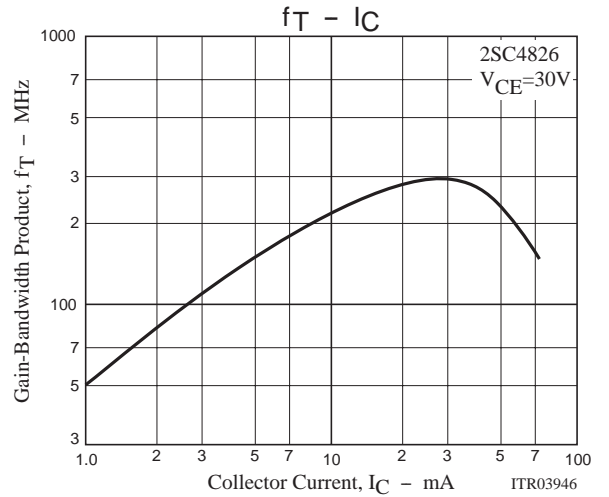
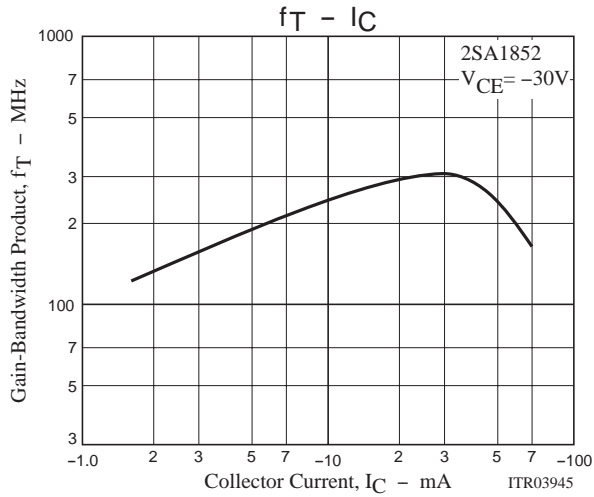
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
DC Current Gain	$h_{FE1}$	$V_{CE}=(-)10V, I_C=(-)10mA$	60*		320*	
	$h_{FE2}$	$V_{CE}=(-)10V, I_C=(-)50mA$	20			
Gain-Bandwidth Product	$f_T$	$V_{CE}=(-)30V, I_C=(-)30mA$		300		MHz
Output Capacitance	$C_{ob}$	$V_{CB}=(-)30V, f=1MHz$		(2.4)1.9		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 :

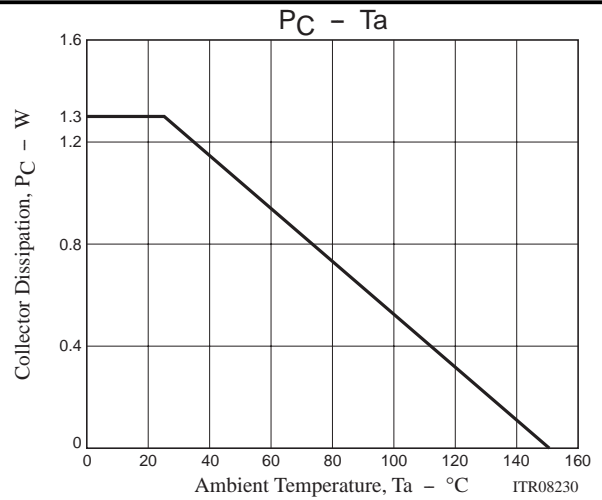
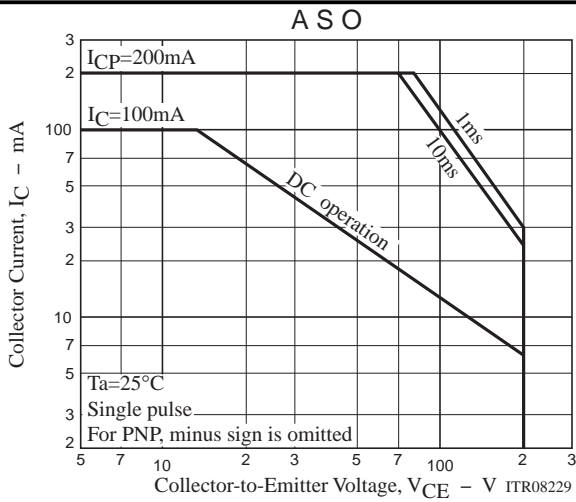
Rank	D	E	F
$h_{FE}$	60 to 120	100 to 200	160 to 320



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