

**2SC4821**

High-Definition CRT Display Video Output Driver Applications

Applications

- High definition CRT display video output driver, wide band amplifier applications and high frequency driver applications

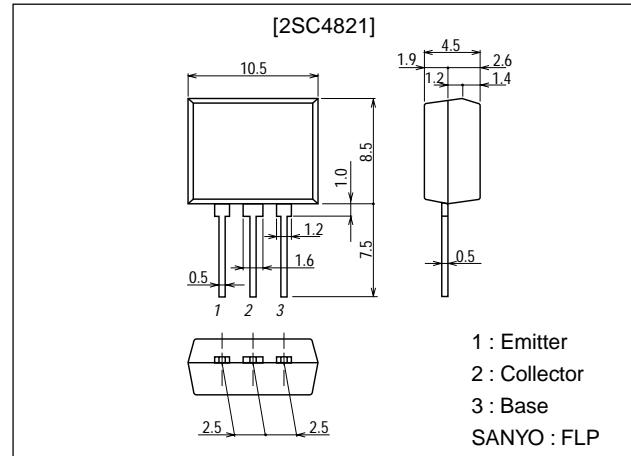
Features

- High gain bandwidth product ($f_T=2.0\text{GHz}$).
- Large current capacity ($I_C=500\text{mA}$)
- Usage of radial taping to meet automatic mounting.

Package Dimensions

unit:mm

2084B



Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		30	V
Collector-to-Emitter Voltage	V_{CEO}		20	V
Emitter-to-Base Voltage	V_{EBO}		3	V
Collector Current	I_C		500	mA
Collector Current (Pulse)	I_{CP}		1	A
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}	$V_{CB}=20\text{V}, I_E=0$			0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=2\text{V}, I_C=0$			5.0	μA
DC Current Gain	h_{FE1}	$V_{CE}=5\text{V}, I_C=50\text{mA}$	40*		200*	
	h_{FE2}	$V_{CE}=5\text{V}, I_C=500\text{mA}$	20			
Gain-Bandwidth Product	f_T	$V_{CE}=5\text{V}, I_C=100\text{mA}$		2.0		GHz

* : The 2SC4821 is classified by 50mA h_{FE} as follows :

40	C	80	60	D	120	100	E	200
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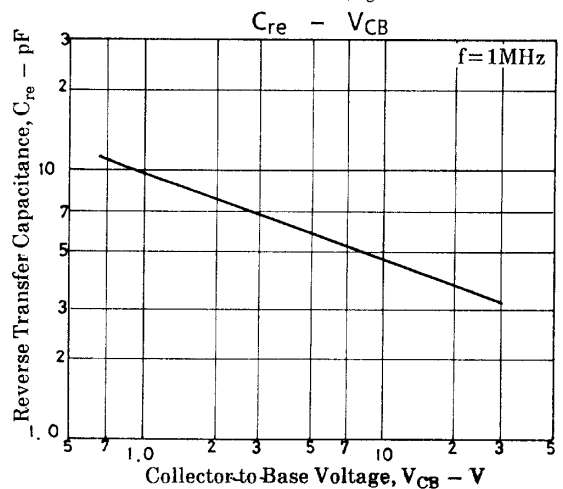
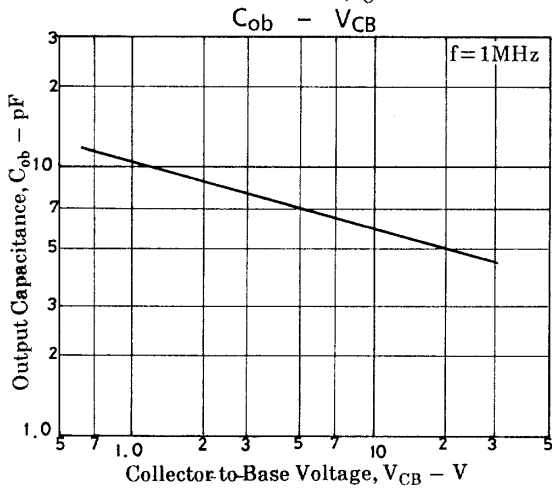
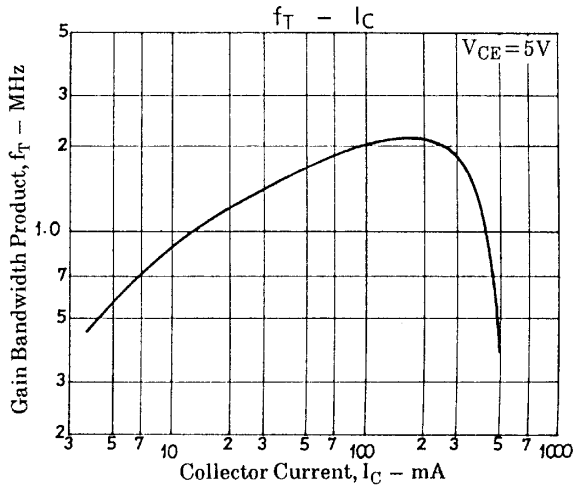
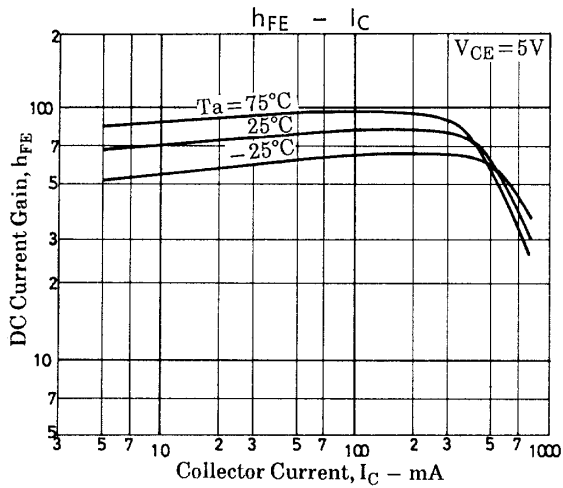
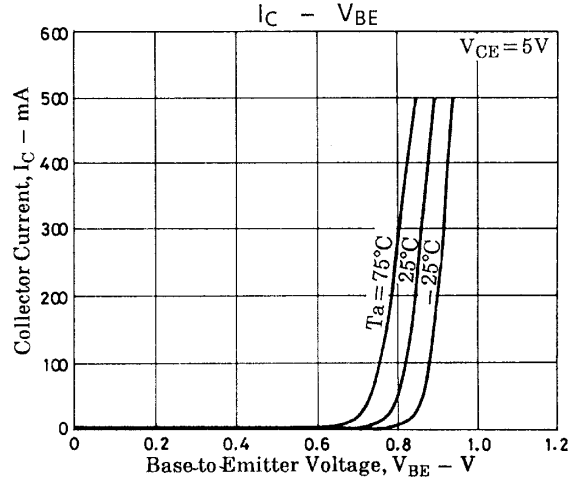
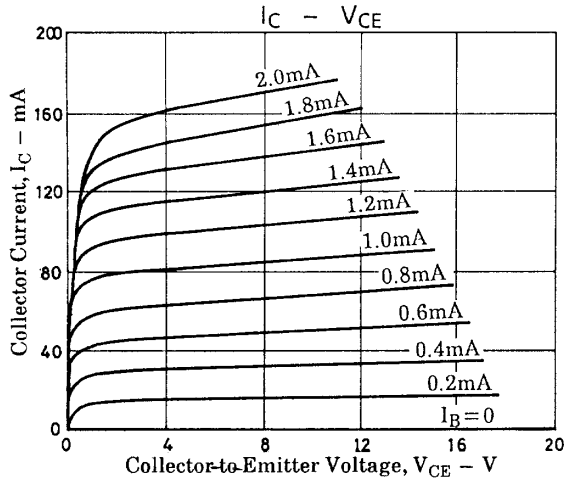
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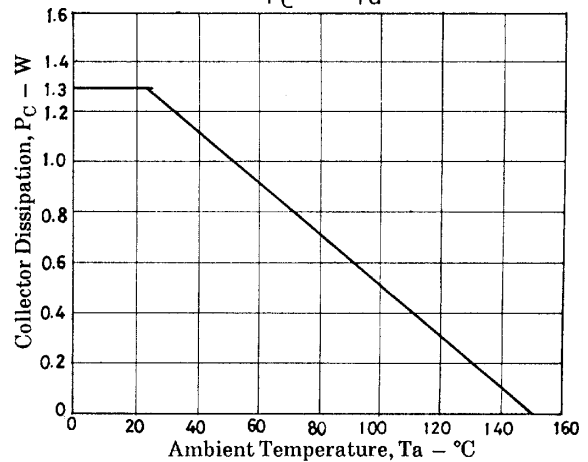
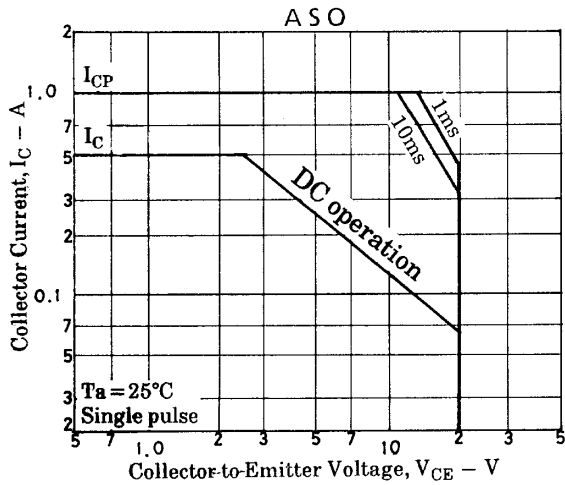
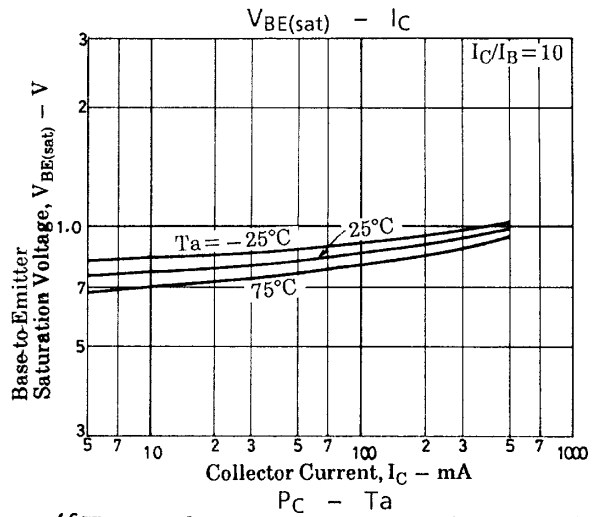
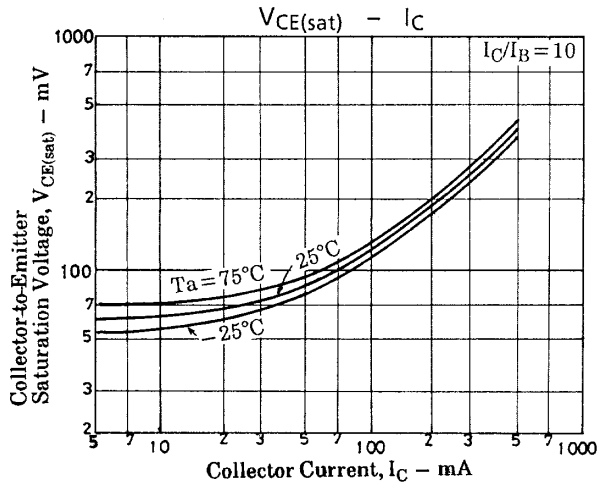
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Output Capacitance	C_{ob}	$V_{CB}=10V, f=1MHz$		6.0		pF
Reverse Transfer Capacitance	C_{re}	$V_{CB}=10V, f=1MHz$		4.6		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=300mA, I_B=30mA$		0.3	0.8	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=300mA, I_B=30mA$		0.9	1.2	V



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