



No.4131

# 2SC4821

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

**Applications**

- High Definition CRT Display Video Output Driver, Wide Band Amp 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.

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

			unit
Collector-to-Base Voltage	$V_{CB0}$	30	V
Collector-to-Emitter Voltage	$V_{CE0}$	20	V
Emitter-to-Base Voltage	$V_{EB0}$	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  $T_a = 25^\circ\text{C}$**

			min	typ	max	unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = 20\text{V}, I_E = 0$			0.1	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 2\text{V}, I_C = 0$			5.0	$\mu\text{A}$
DC Current Gain	$h_{FE}(1)$	$V_{CE} = 5\text{V}, I_C = 50\text{mA}$	40*		200*	
		$V_{CE} = 5\text{V}, I_C = 500\text{mA}$	20			
Gain Bandwidth Product	$f_T$	$V_{CE} = 5\text{V}, I_C = 100\text{mA}$		2.0		GHz
Output Capacitance	$C_{ob}$	$V_{CB} = 10\text{V}, f = 1\text{MHz}$		6.0		pF
Reverse Transfer Capacitance	$C_{re}$	$V_{CB} = 10\text{V}, f = 1\text{MHz}$		4.6		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = 300\text{mA}, I_B = 30\text{mA}$	0.3	0.8		V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = 300\text{mA}, I_B = 30\text{mA}$	0.9	1.2		V

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

40	C	80	60	D	120	100	E	200
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**Package Dimensions 2084B**

(unit: mm)





