

Ordering number:EN3790

PNP Epitaxial Planar Silicon Transistor



# 2SC4411

## Ultrahigh-Definition CRT Display Video Output Applications

### Applications

- Wide-band amplifiers.

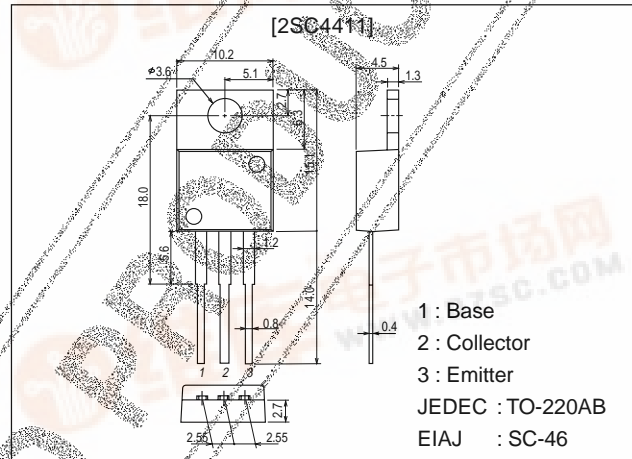
### Features

- High  $f_T$  ( $f_T=1.2\text{GHz}$  typ).
- High breakdown voltage ( $V_{CBO}=100\text{V}$ ,  $V_{CEO}=80\text{V}$ ).
- Large current ( $I_C=500\text{mA}$ ).
- Small reverse transfer capacitance ( $C_{re}=3.8\text{pF}$ / $V_{CB}=30\text{V}$ ).
- Adoption of FBET process.

### Package Dimensions

unit:mm

2010C



### Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	$V_{CBO}$		100	V
Collector-to-Emitter Voltage	$V_{CEO}$		80	V
Emitter-to-Base Voltage	$V_{EBO}$		3	V
Collector Current	$I_C$		500	mA
Collector Current (Pulse)	$I_{CP}$		1.0	A
Collector Dissipation	$P_C$	$T_c=25^\circ\text{C}$	1.75	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	$I_{CBO}$	$V_{CB}=80\text{V}$ , $I_E=0$			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	$h_{FE1}$	$V_{CE}=10\text{V}$ , $I_C=50\text{mA}$	30		200	
	$h_{FE2}$	$V_{CE}=10\text{V}$ , $I_C=500\text{mA}$	20			
Gain-Bandwidth Product	$f_T$	$V_{CE}=10\text{V}$ , $I_C=100\text{mA}$		1.2		GHz
Output Capacitance	$C_{ob}$	$V_{CB}=30\text{V}$ , $f=1\text{MHz}$		4.4		pF
Reverse Transfer Capacitance	$C_{re}$	$V_{CB}=30\text{V}$ , $f=1\text{MHz}$		3.8		pF

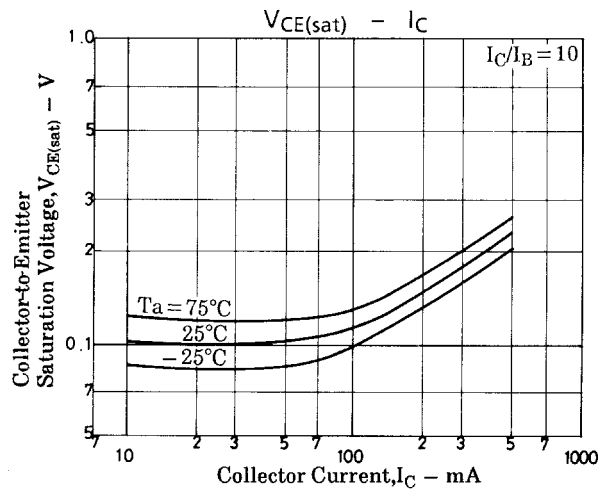
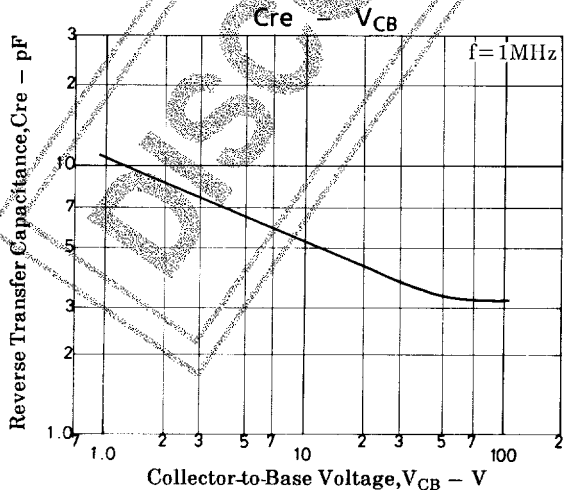
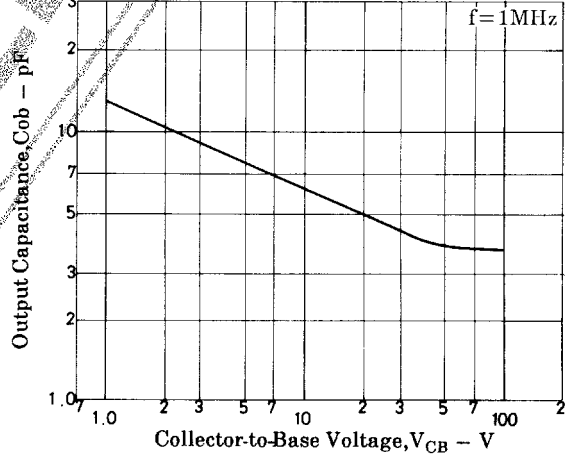
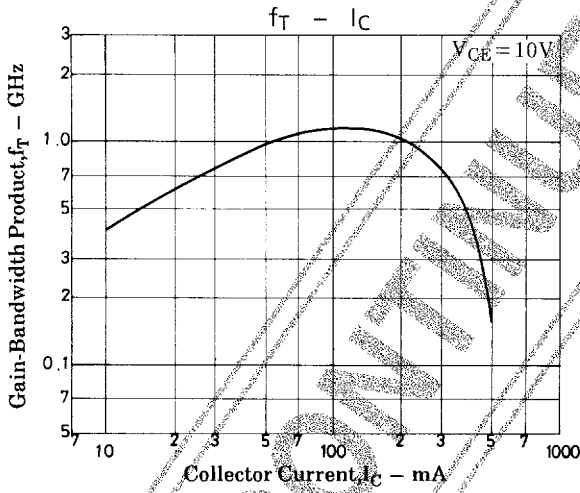
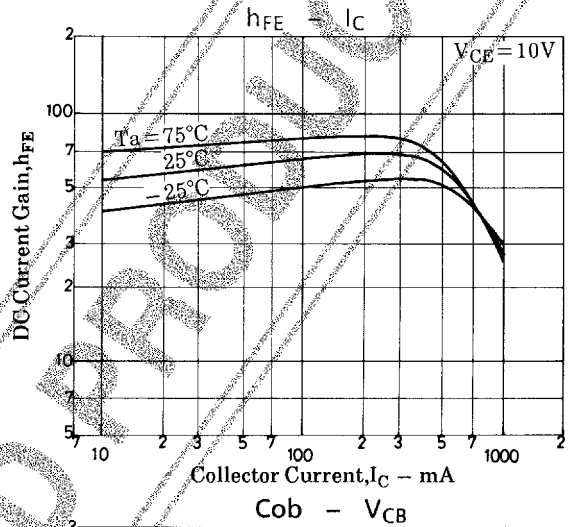
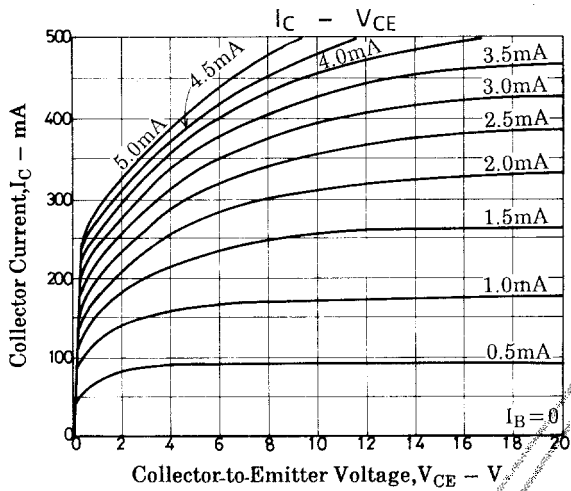
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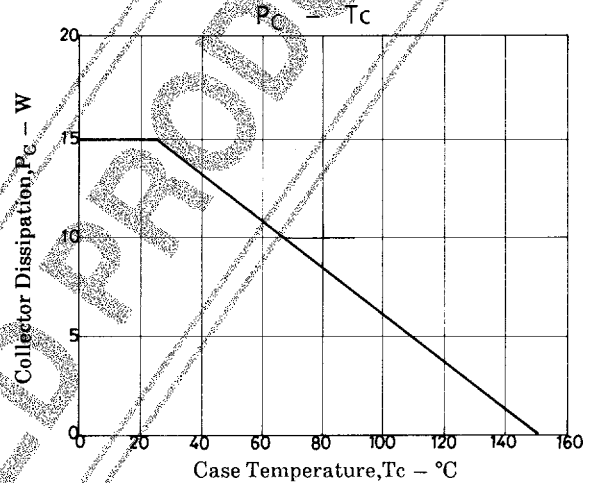
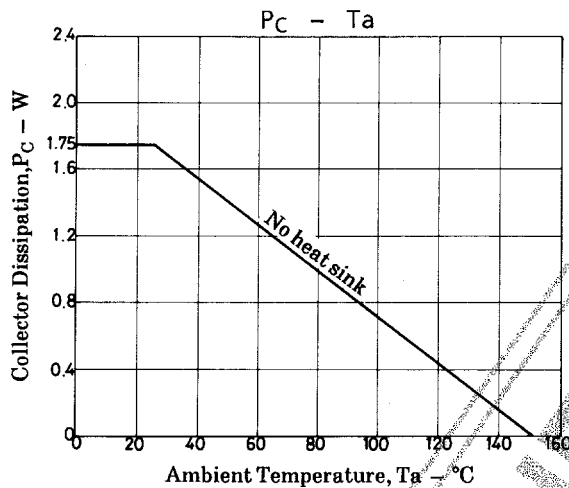
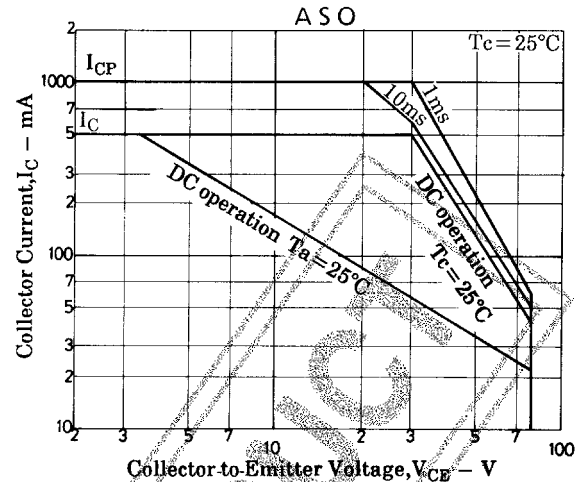
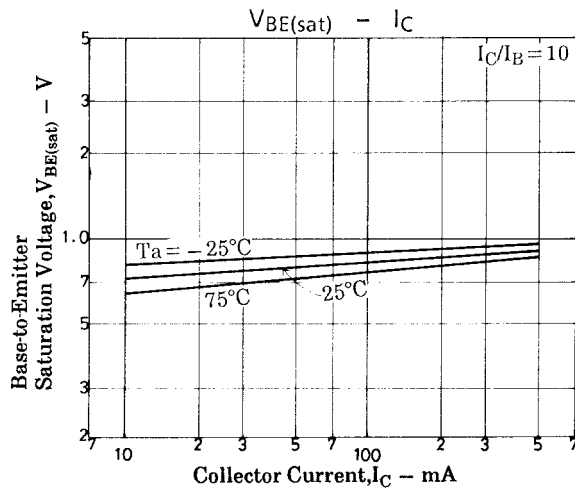


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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=300mA, I_B=30mA$			0.6	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=300mA, I_B=30mA$			1.2	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	100			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1mA, R_{BE}=\infty$	80			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	3			V



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