

SANYO**2SC3595****Ultrahigh-Definition CRT Display
Video Output Applications****Applications**

- Ultrahigh-definition CRT display.
- Video output driver.
- Wideband amplifiers.

Features

- High f_T : f_T typ=2.0GHz.
- High current : I_C =500mA.

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}		1000	mA
Collector Dissipation	P_C	$T_c=25^\circ\text{C}$	1.2	W
			5	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}	$V_{EB}=2\text{V}$			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 2SC3595 is classified by 50mA h_{FE} as follows :

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Rank	C	D	E
h_{FE}	40 to 80	60 to 120	100 to 200

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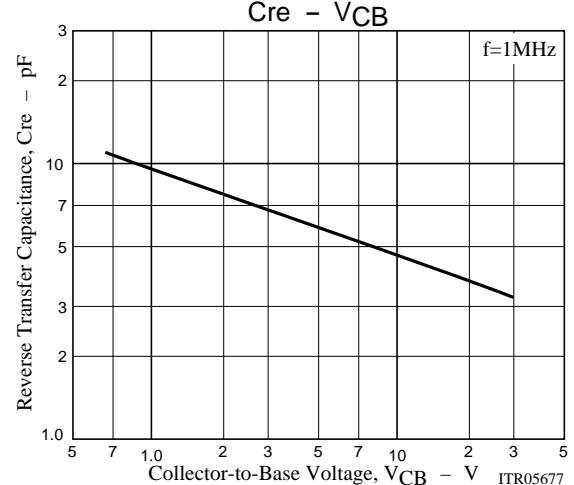
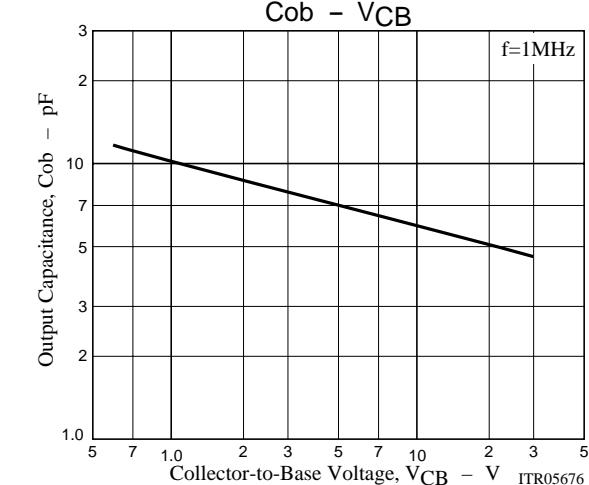
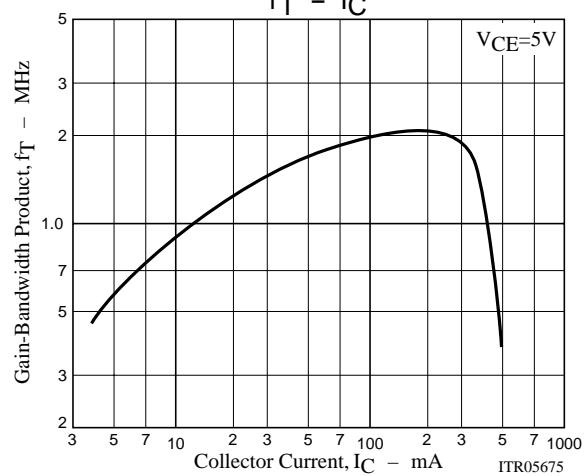
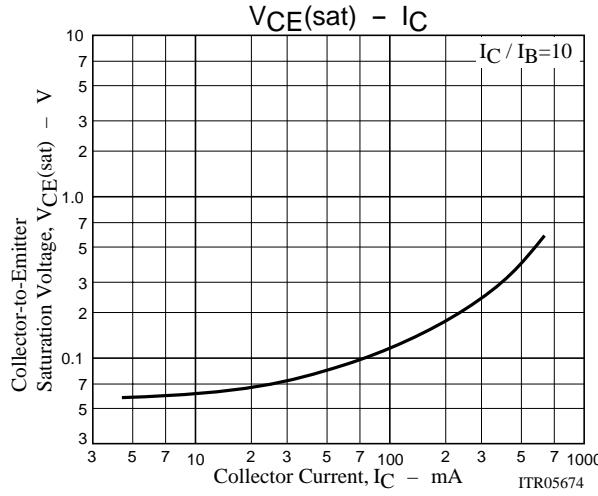
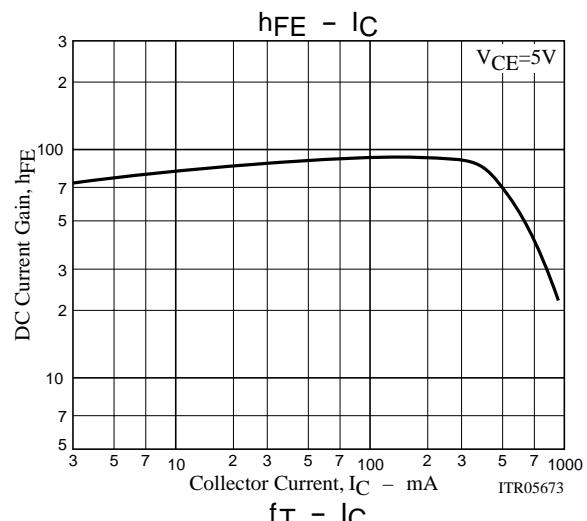
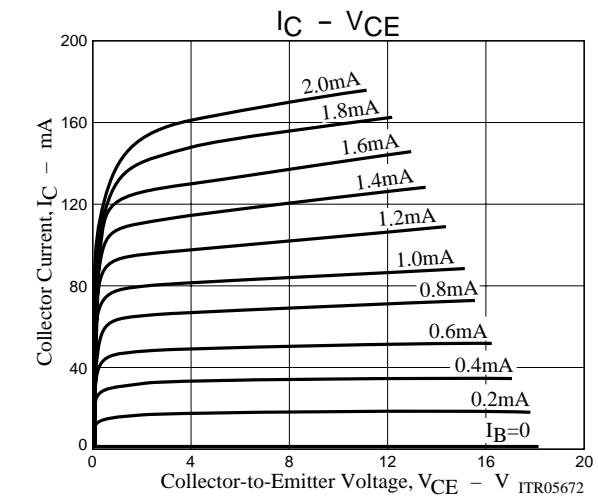
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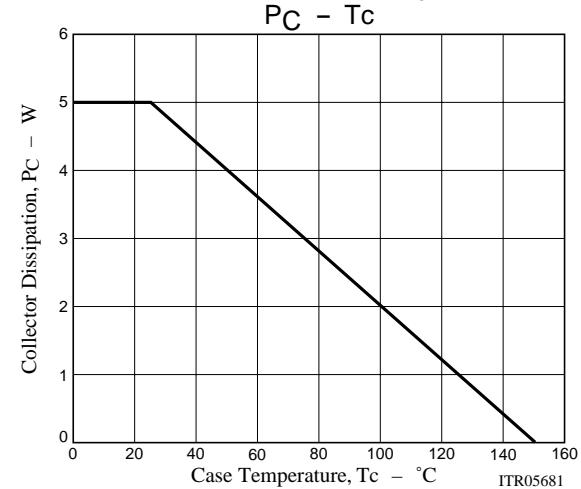
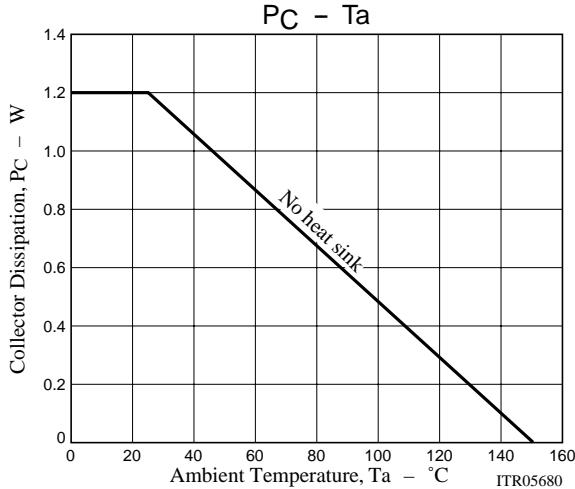
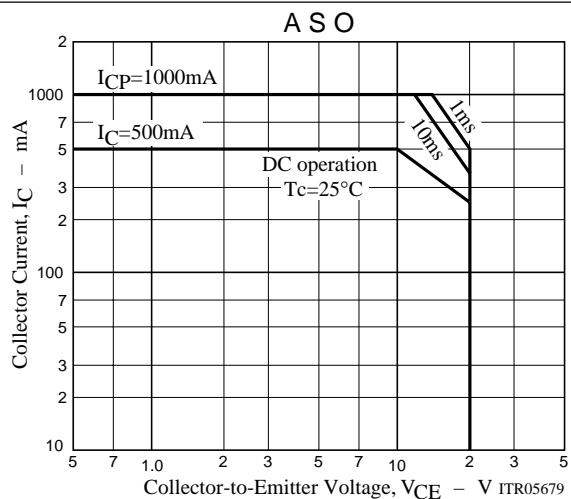
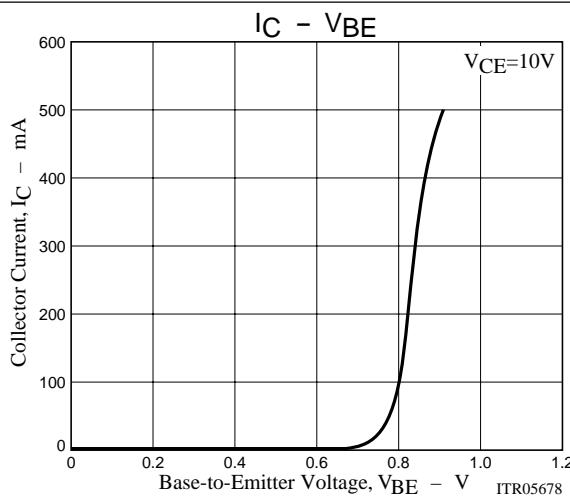
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=300\text{mA}$, $I_B=30\text{mA}$		0.25	0.6	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=300\text{mA}$, $I_B=30\text{mA}$		0.92	1.2	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10\mu\text{A}$, $I_E=0$	30			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}$, $R_{BE}=\infty$	20			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=100\mu\text{A}$, $I_C=0$	3			V
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





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