



2SA1710/2SC4490

High-Definition CRT Display Video Output Applications

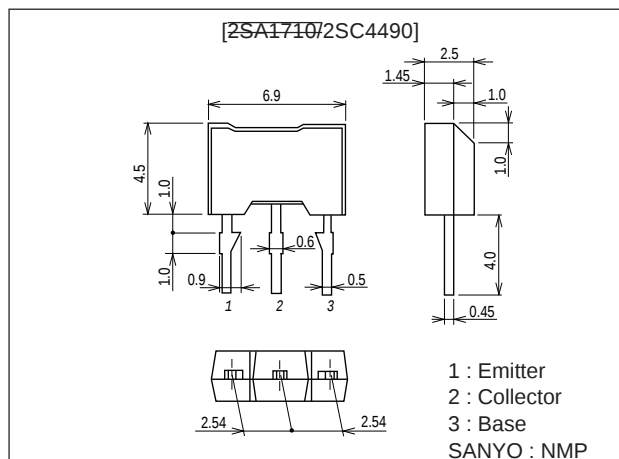
Features

- High breakdown voltage ($V_{CEO} \geq 300V$).
- Excellent high frequency characteristic.
- Adoption of MBIT process.

Package Dimensions

unit:mm

2064A



($\ominus$): 2SA1710

Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		≥ 300	V
Collector-to-Emitter Voltage	V_{CEO}		≥ 300	V
Emitter-to-Base Voltage	V_{EBO}		≥ 5	V
Collector Current	I_C		≤ 100	mA
Collector Current (Pulse)	I_{CP}		≤ 200	mA
Collector Dissipation	P_C		1	W
Junction Temperature	T_J		150	$^\circ C$
Storage Temperature	T_{stg}		-55 to +150	$^\circ C$

Electrical Characteristics at $T_a = 25^\circ C$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB} = \ominus 200V, I_E = 0$			≤ 100	nA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = \ominus 4V, I_C = 0$			≤ 100	nA
DC Current Gain	h_{FE}	$V_{CE} = \ominus 10V, I_C = \ominus 10mA$	70*		280*	
Gain-Bandwidth Product	f_T	$V_{CE} = \ominus 30V, I_C = \ominus 10mA$		70		MHz

* : The 2SA1710/2SC4490 are classified by 100mA h_{FE} as follows :

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Rank	Q	R	S
h_{FE}	70 to 140	100 to 200	140 to 280

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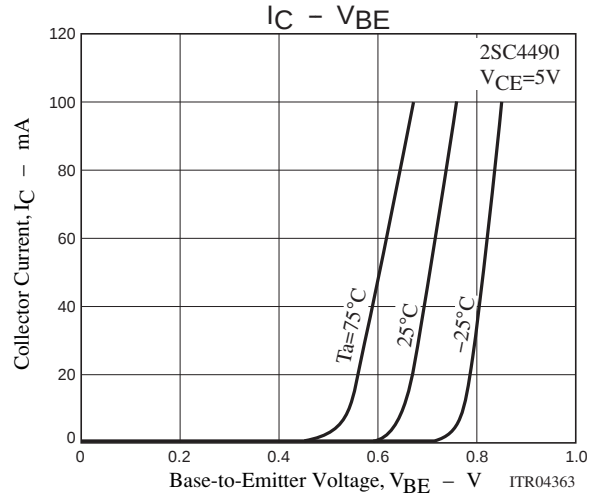
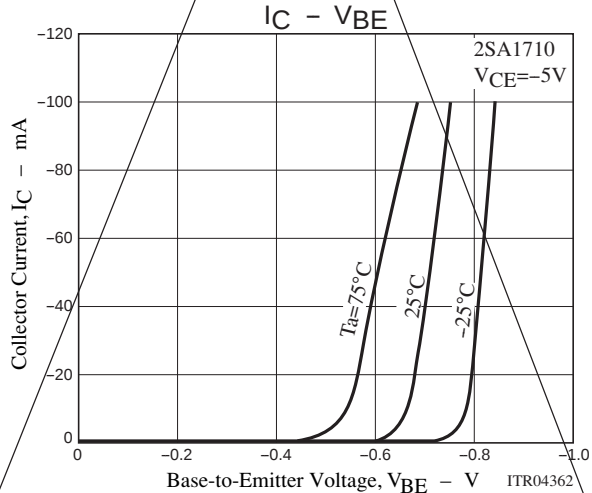
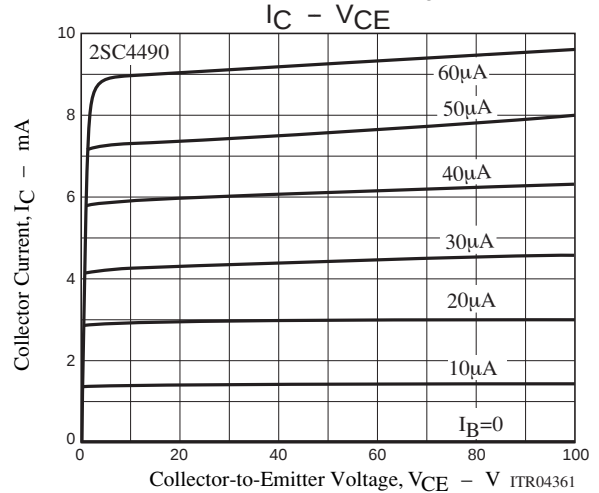
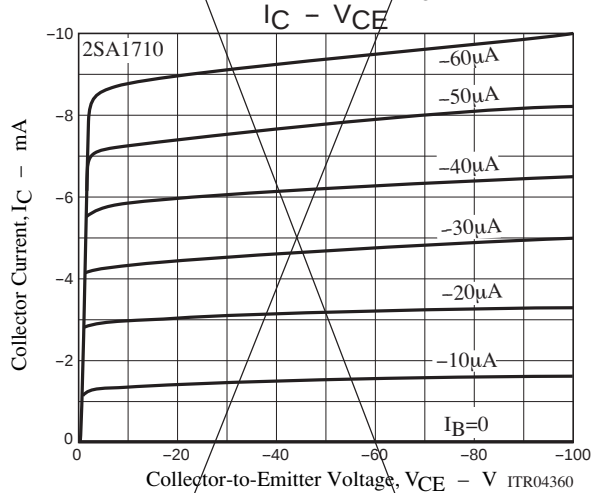
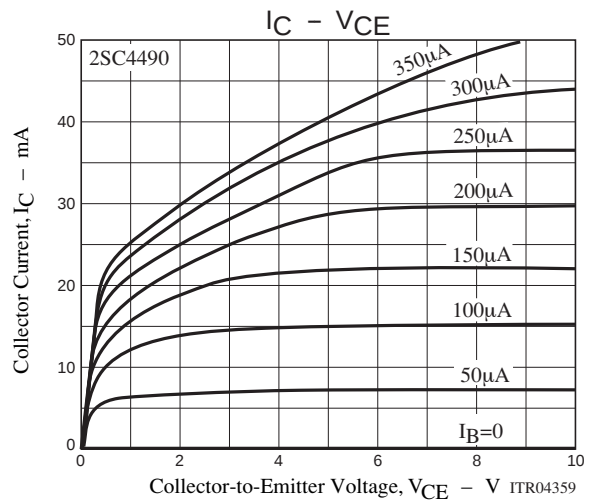
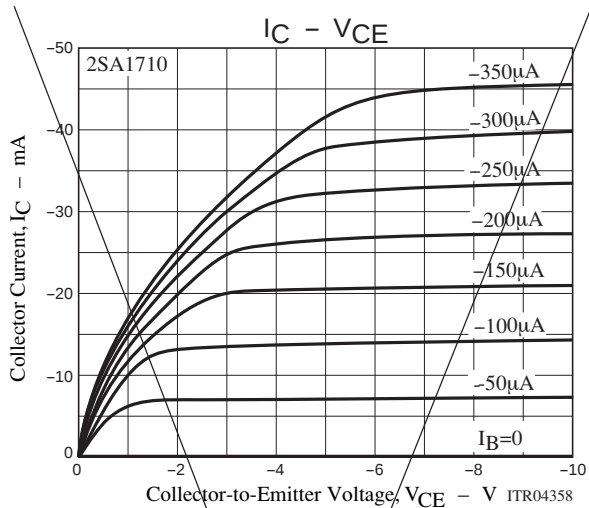
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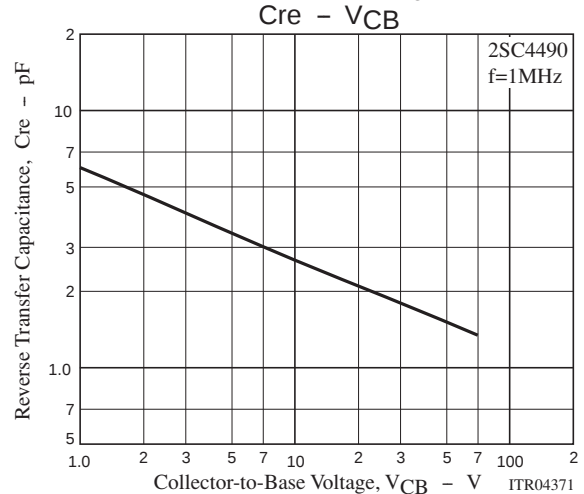
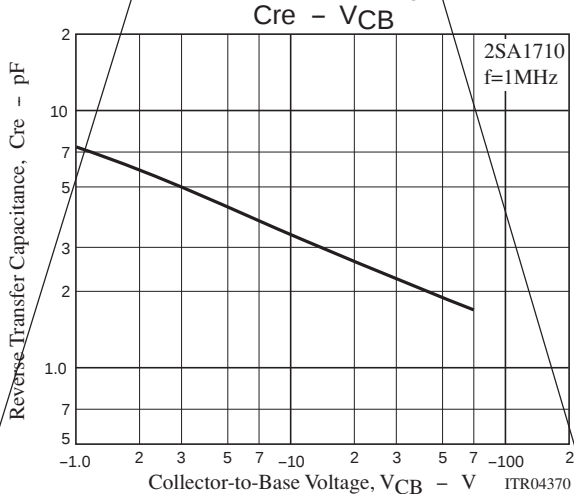
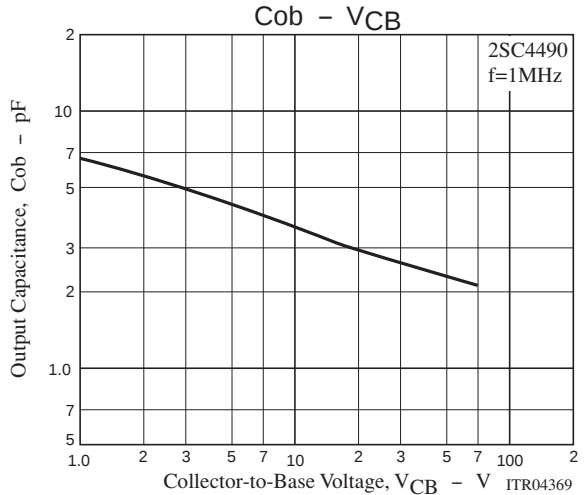
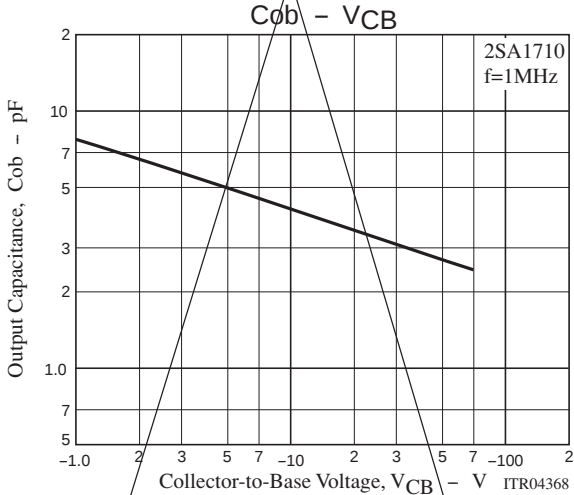
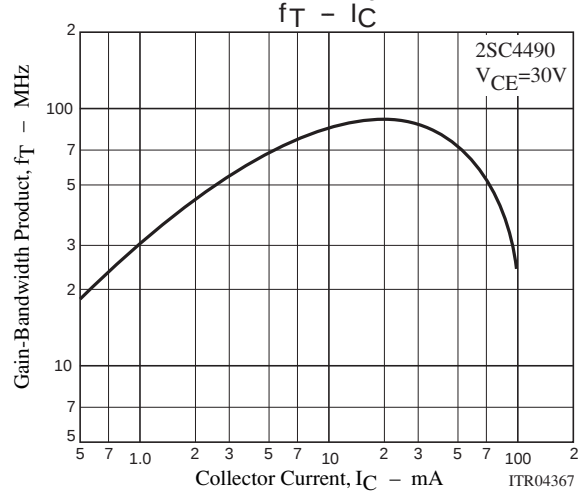
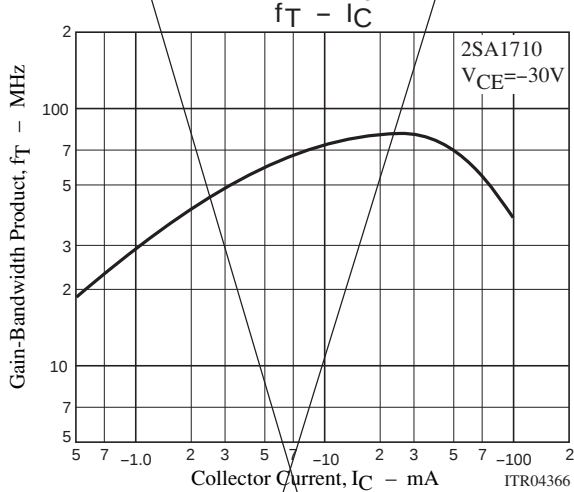
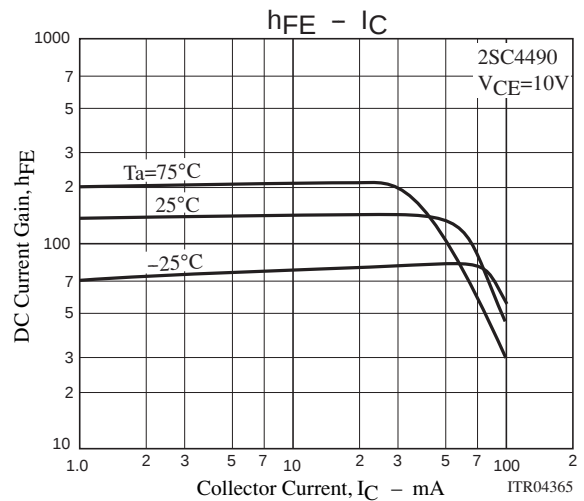
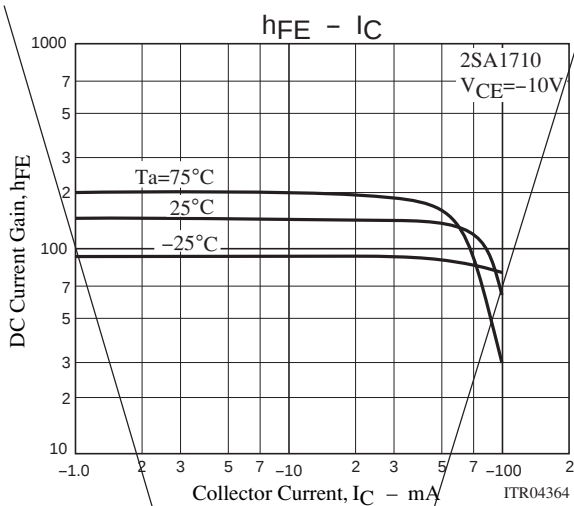
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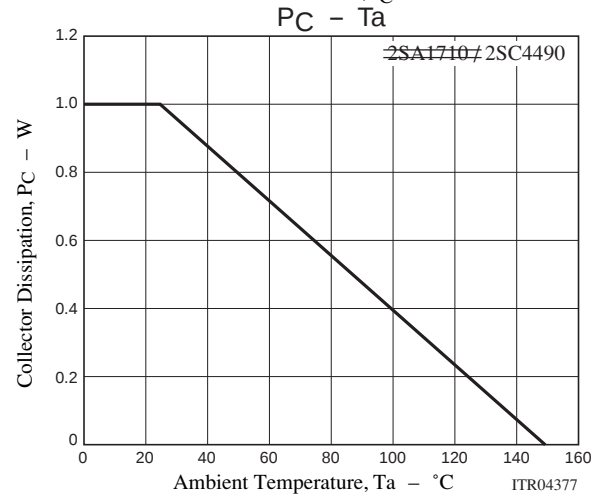
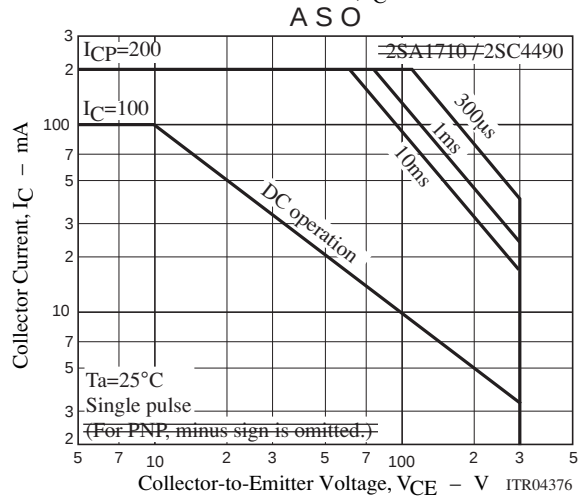
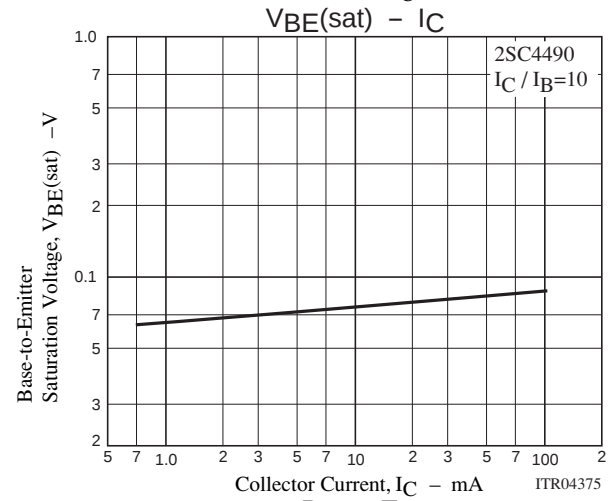
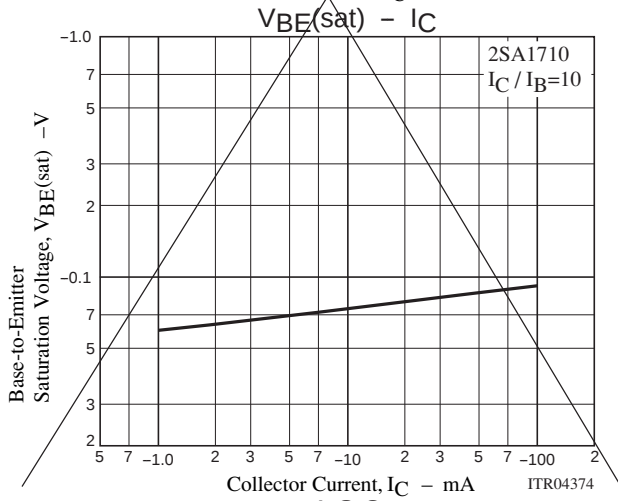
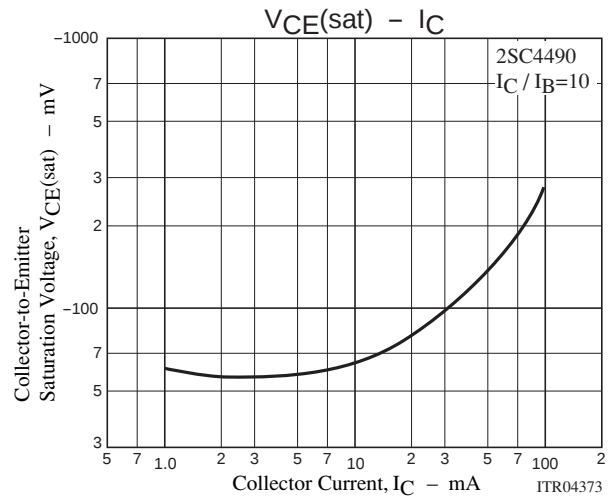
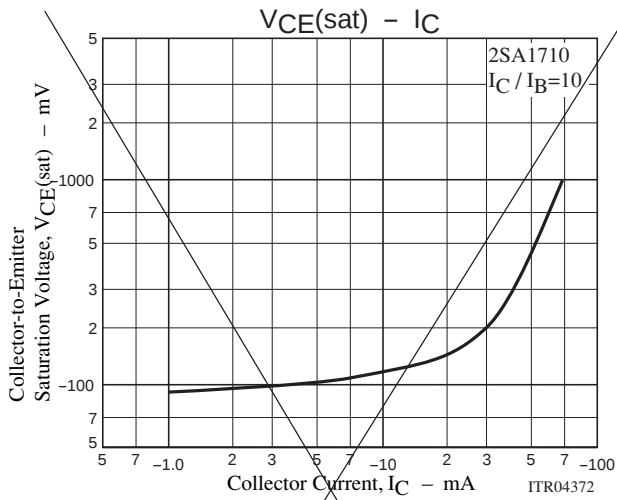
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = (\pm)20\text{mA}$, $I_B = (\pm)2\text{mA}$			$(\pm)0.6$	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = (\pm)20\text{mA}$, $I_B = (\pm)2\text{mA}$			$(\pm)1.0$	V
Output Capacitance	C_{ob}	$V_{CB} = (\pm)30\text{V}$, $f = 1\text{MHz}$		(3.1)		pF
				2.6		pF
Reverse Transfer Capacitance	C_{re}	$V_{CB} = (\pm)30\text{V}$, $f = 1\text{MHz}$		(2.3)		pF
				1.8		pF
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (\pm)10\mu\text{A}$, $I_E = 0$	$(\pm)300$			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (\pm)1\text{mA}$, $R_{BE} = \infty$	$(\pm)300$			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = (\pm)10\mu\text{A}$, $I_C = 0$	$(\pm)5$			V







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