



2SC5696

Color TV Horizontal Deflection Output Applications

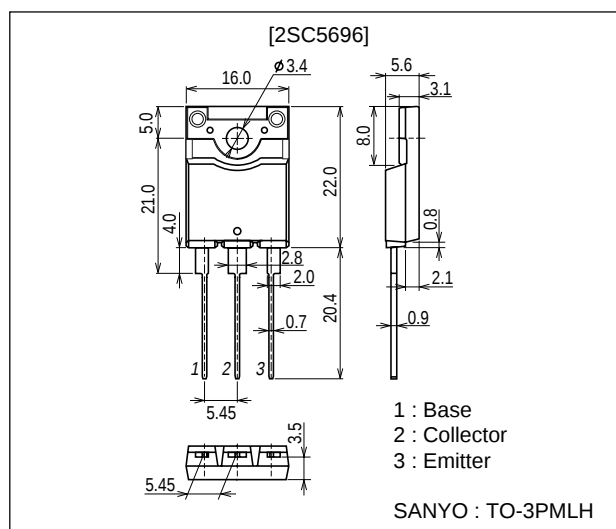
Features

- High speed.
- High breakdown voltage($V_{CBO}=1600V$).
- High reliability(Adoption of HVP process).
- Adoption of MBIT process.
- On-chip damper diode.

Package Dimensions

unit : mm

2174A



Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V _{CBO}		1600	V
Collector-to-Emitter Voltage	V _{CEO}		800	V
Emitter-to-Base Voltage	V _{EBO}		5	V
Collector Current	I _C		12	A
Collector Current (Pulse)	I _{CP}		36	A
Collector Dissipation	P _C		3.0	W
		T _C =25°C	85	W
Junction Temperature	T _J		150	°C
Storage Temperature	T _{stg}		-55 to +150	°C

Electrical Characteristics at $T_a=25^{\circ}\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=800V, I_E=0$			10	μA
Collector Cutoff Current	I_{CES}	$V_{CE}=1600V, R_{BE}=0$			1.0	mA
Collector Sustain Voltage	$V_{CEO(sus)}$	$I_C=100mA, I_B=0$	800			V
Emitter Cutoff Current	I_{EBO}	$V_{EB}=4V, I_C=0$	80		800	mA

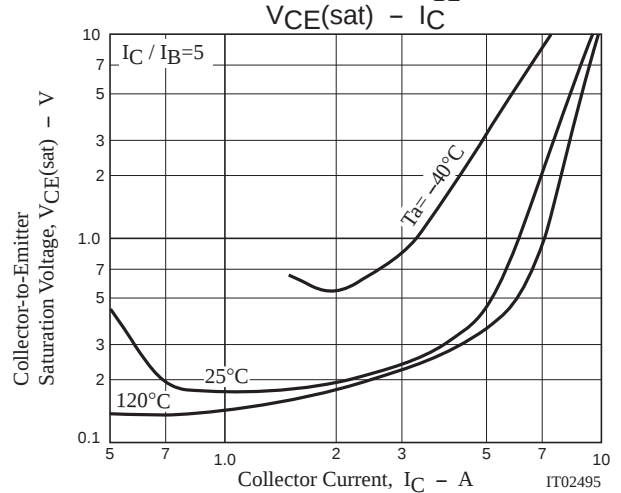
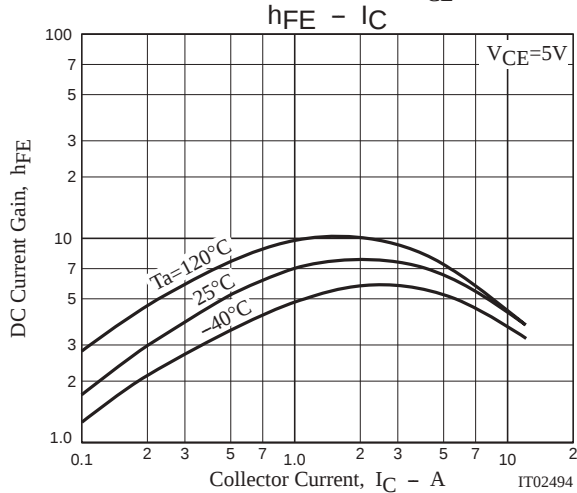
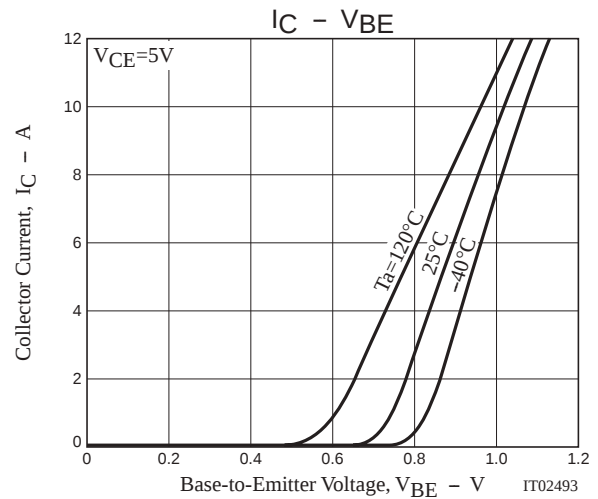
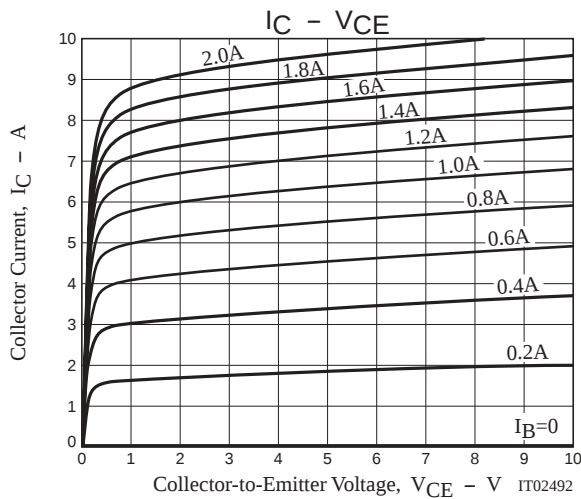
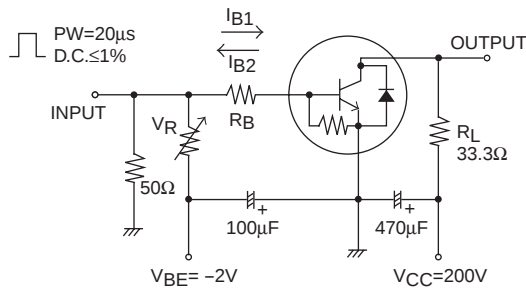
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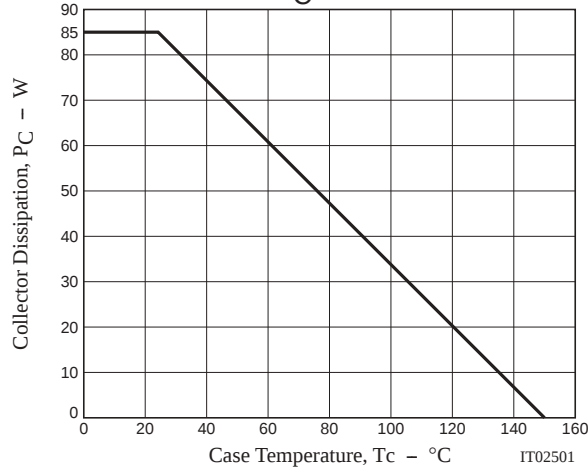
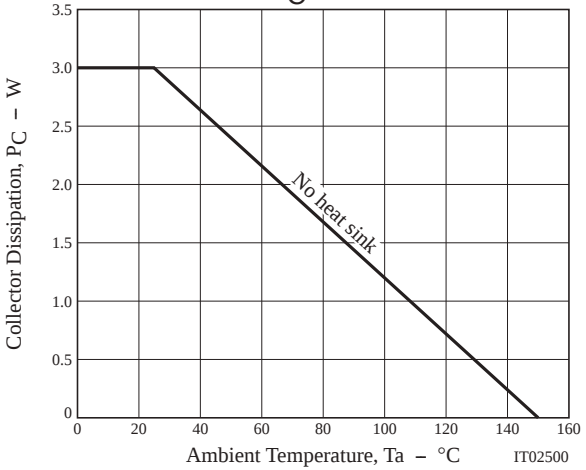
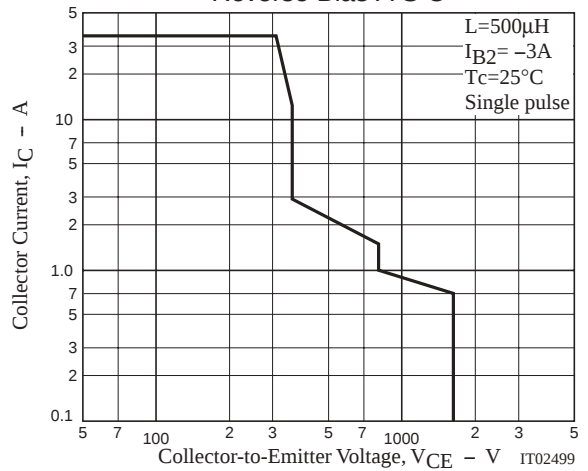
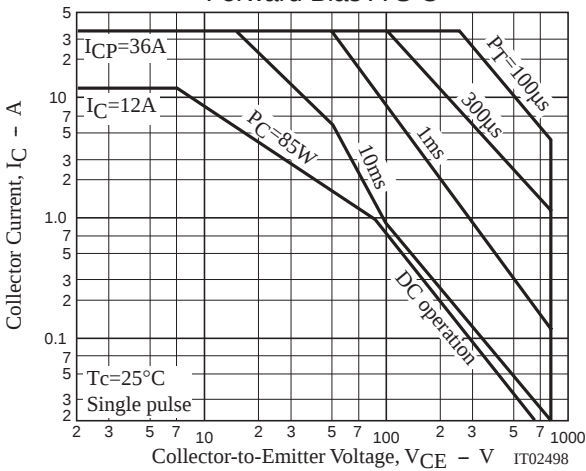
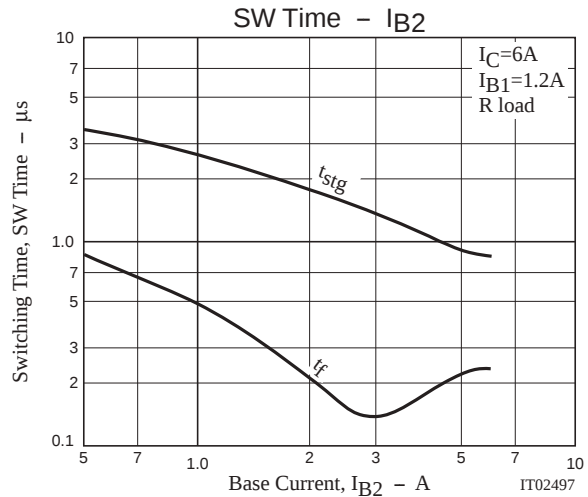
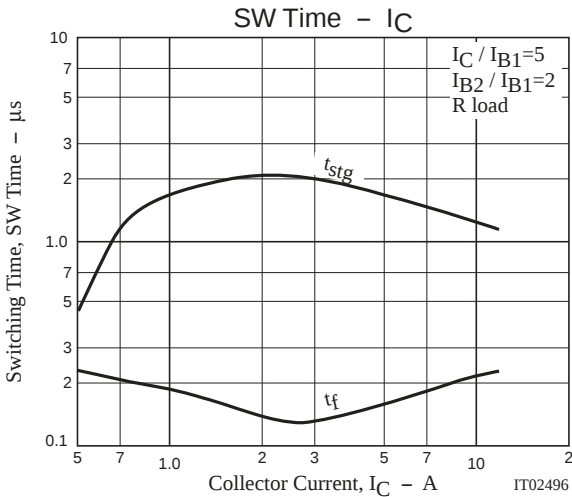
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=7.2A, I_B=1.8A$			3	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=7.2A, I_B=1.8A$			1.5	V
DC Current Gain	h_{FE1}	$V_{CE}=5V, I_C=1A$	3		11	
	h_{FE2}	$V_{CE}=5V, I_C=8A$	4		7	
Fall Time	t_f	$I_C=6A, I_{B1}=1.2A, I_{B2}=-2.4A$			0.3	μs
Storage Time	t_{stg}	$I_C=6A, I_{B1}=1.2A, I_{B2}=-2.4A$			2.0	μs
Diode Forward Voltage	V_F	$I_{EC}=10A$			2.2	V

Switching Time Test Circuit





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