

**2SC5690**

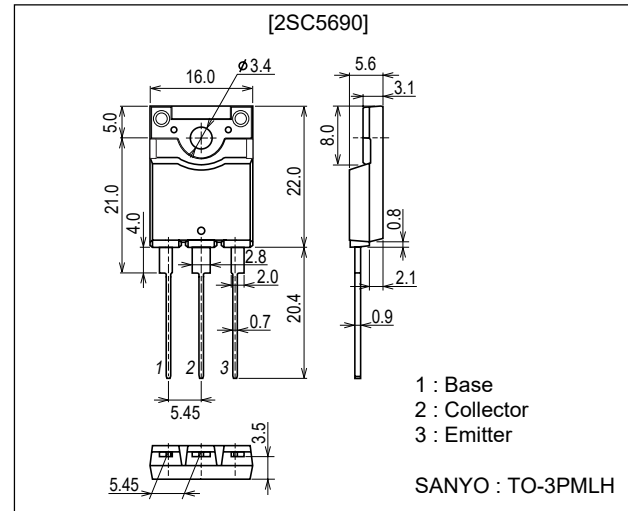
## Ultrahigh-Definition CRT Display Horizontal Deflection Output Applications

### Features

- High speed.
- High breakdown voltage( $V_{CBO}=1500V$ ).
- High reliability(Adoption of HVP process).
- Adoption of MBIT process.
- On-chip damper diode.

### Package Dimensions

unit : mm  
2174A



### Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	$V_{CBO}$		1500	V
Collector-to-Emitter Voltage	$V_{CEO}$		800	V
Emitter-to-Base Voltage	$V_{EBO}$		5	V
Collector Current	$I_C$		15	A
Collector Current (Pulse)	$I_{CP}$		35	A
Collector Dissipation	$P_C$		3.0	W
		$T_c=25^\circ C$	85	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	$I_{CBO}$	$V_{CB}=800V, I_E=0$			10	$\mu A$
	$I_{CES}$	$V_{CE}=1500V, R_{BE}=0$			1.0	mA
Collector Sustain Voltage	$V_{CEO(sus)}$	$I_C=100mA, I_B=0$	800			V
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=4V, I_C=0$	40		130	mA
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=10.8A, I_B=2.7A$			3	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=10.8A, I_B=2.7A$			1.5	V
DC Current Gain	$h_{FE1}$	$V_{CE}=5V, I_C=1A$	10			
	$h_{FE2}$	$V_{CE}=5V, I_C=12A$	4		7	

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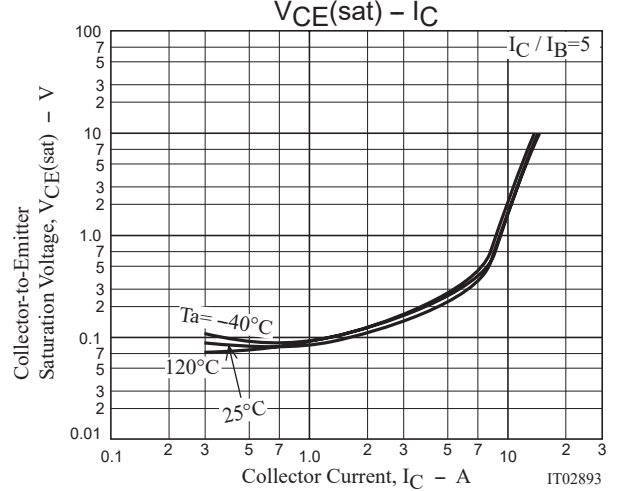
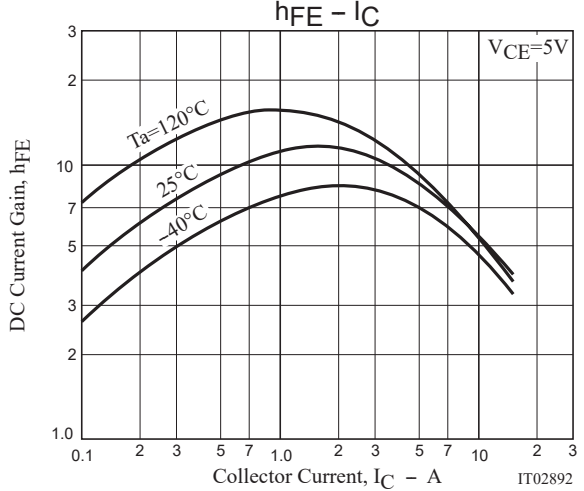
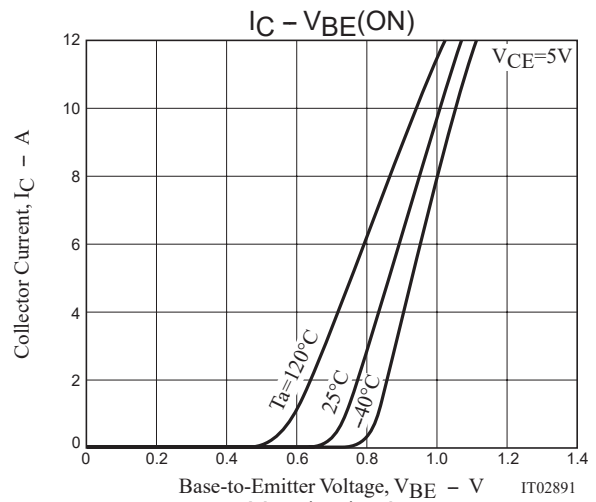
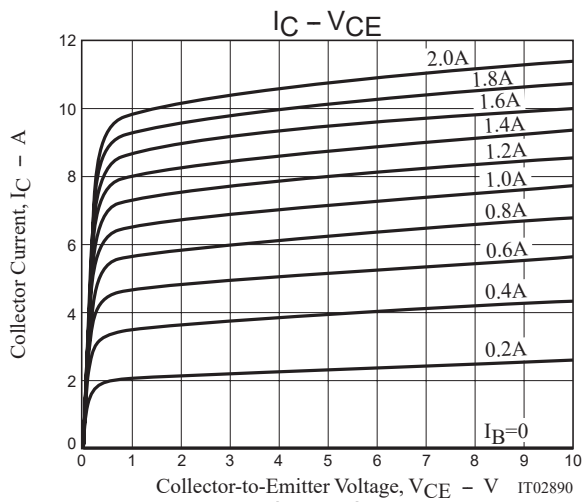
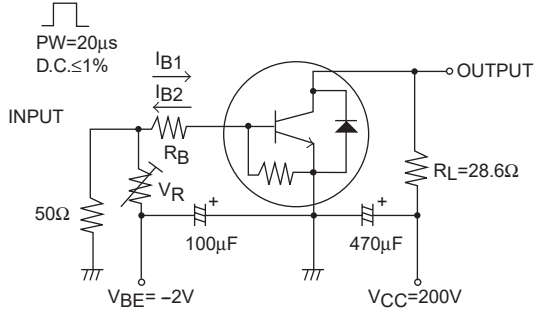
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Diode Forward Voltage	$V_F$	$I_{EC}=12A$			2	V
Storage Time	$t_{stg}$	$I_C=7A, I_{B1}=1.4A, I_{B2}=-2.8A$			3.0	$\mu s$
Fall Time	$t_f$	$I_C=7A, I_{B1}=1.4A, I_{B2}=-2.8A$			0.2	$\mu s$

## Switching Time Test Circuit



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