



2SC5302

Ultrahigh-Definition CRT Display Horizontal Deflection Output Applications

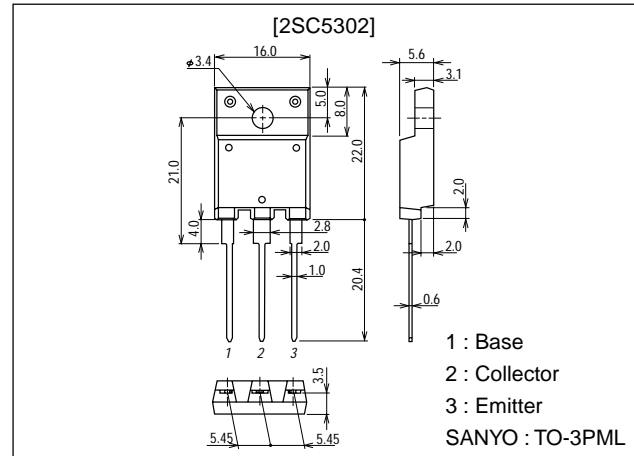
Features

- Fast speed ($t_f=100\text{ns}$ typ).
- High breakdown voltage ($V_{CBO}=1500\text{V}$).
- High reliability (adoption of HVP process).
- Adoption of MBIT process.

Package Dimensions

unit:mm

2039D



Specifications

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

Parameter	Symbol	Condition	Rating	Unit
Collector-to-Base Voltage	V_{CBO}		1500	
Collector-to-Emitter Voltage	V_{CEO}		800	
Emitter-to-Base Voltage	V_{EBO}		6V	
Collector Current	I_C		1A	
Collector Current (pulse)	I_{CP}		3A	
Collector Dissipation	P_C		3W	
		$T_c=25^\circ\text{C}$	7W	
Junction Temperature	T_j		150	$^\circ\text{C}$
Storage Temperature	T_{st}		-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	Ratings			Unit
			$m\mu\text{A}$	μA	mA	
Collector Cutoff Current	I_{CES}	$V_{CE}=1500\text{V}, R_{BE}=0$			1A	m
Collector Sustain Voltage	$V_{CEO(sus)}$	$I_C=100\text{mA}, I_B=0$	80V			
Emitter Cutoff Current	I_{EBO}	$V_{EB}=4\text{V}, I_C=0$			1A	m
Collector Cutoff Current	I_{CBO}	$V_{CB}=800\text{V}, I_E=0$			1A	μ
DC Current Gain	h_{FE1V}	$V_{CE}=5\text{V}, I_C=0.0\text{A}$	20		3	
	h_{FE2V}	$V_{CE}=5\text{V}, I_C=42\text{A}$			7	

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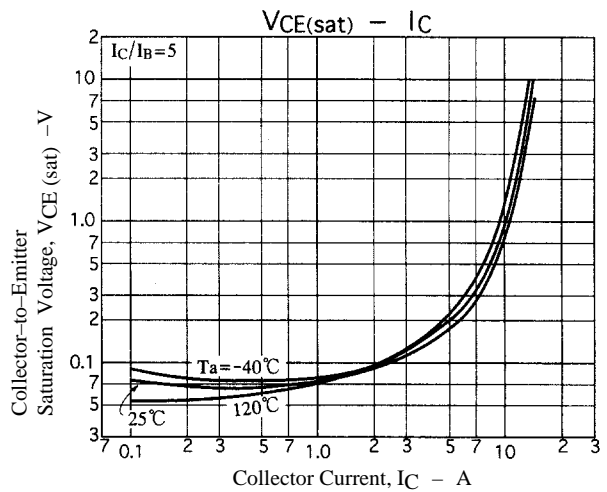
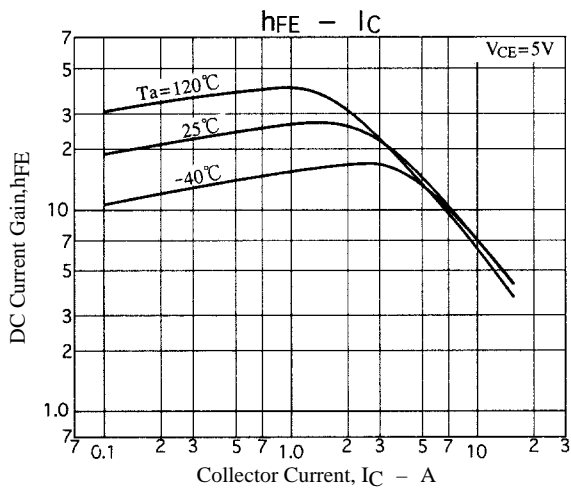
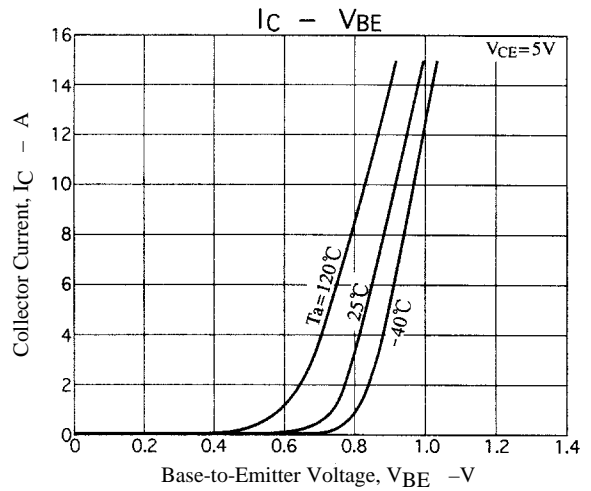
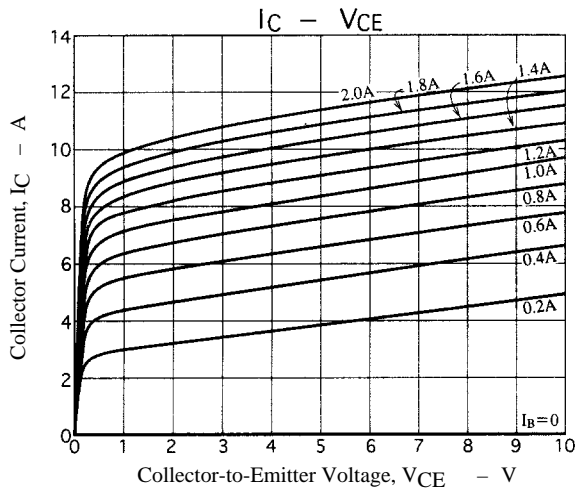
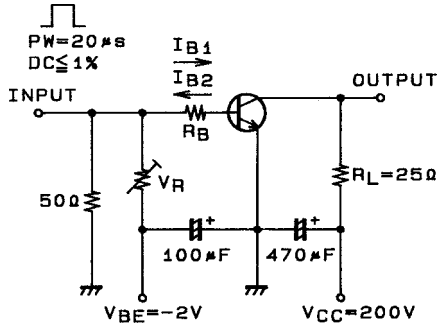
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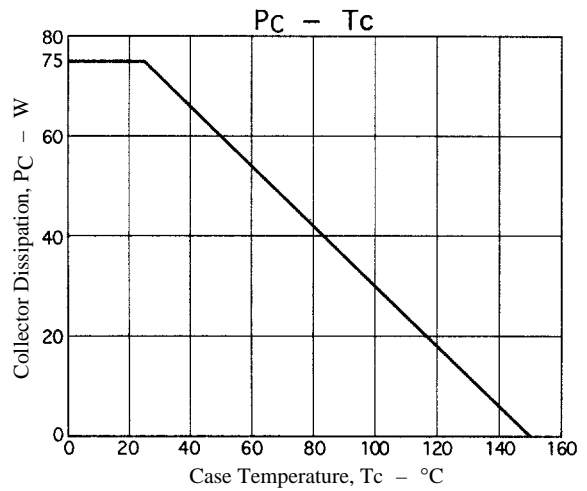
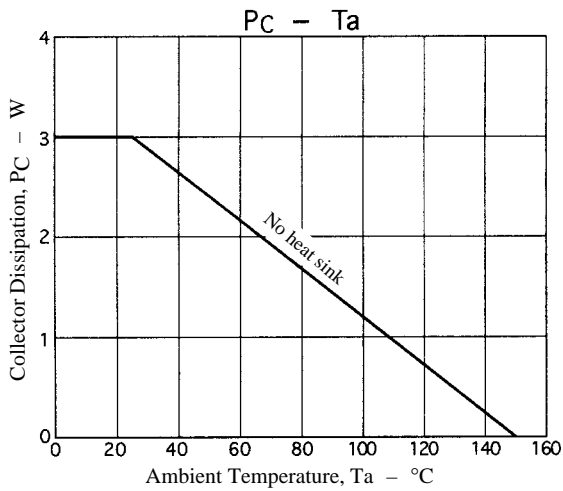
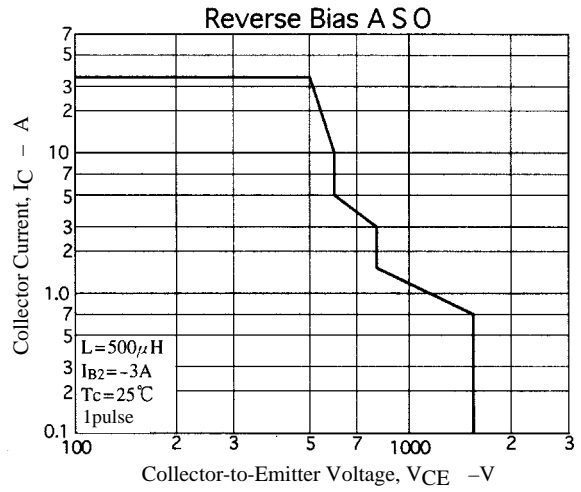
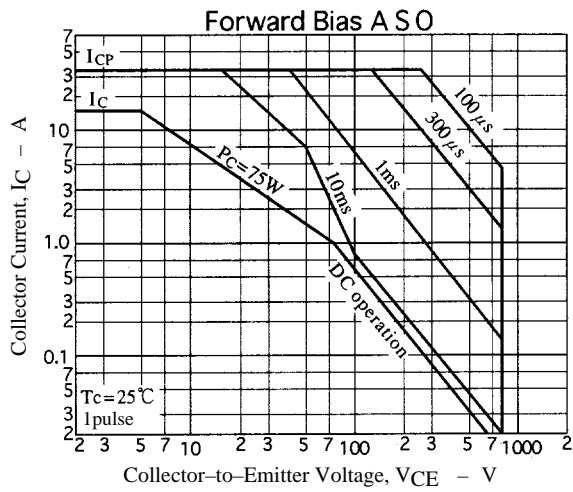
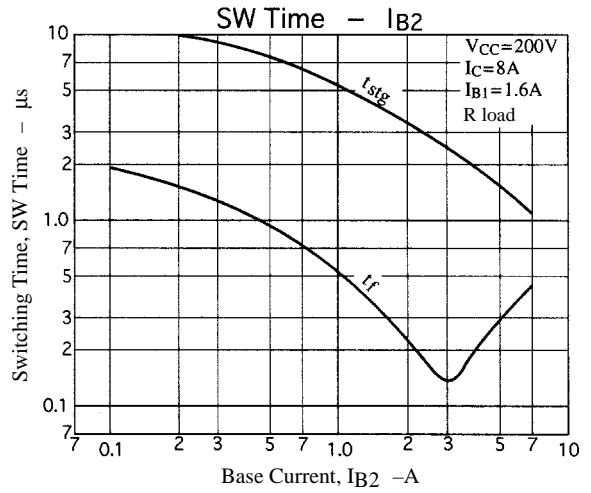
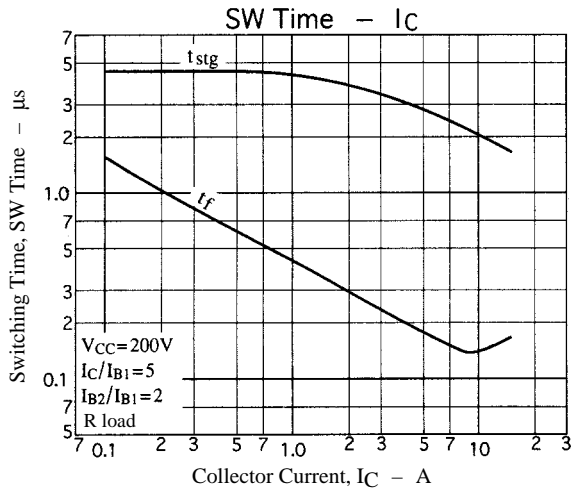
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Parameter	Symbo	Condition	Ratings			Unit
			mjn	ty	ma	
Collector-to-Emitter Saturation Voltage	CE(sat)	$I_C=12A, I_B=5A$				V
Base-to-Emitter Saturation Voltage	BE(sat)	$I_C=12A, I_B=5A$			1V	
Storage Time	stg	$I_C=8A, I_B1=1.6A, I_B2=3.2A$			3s	μ
Fall Time	f	$I_C=8A, I_B1=1.6A, I_B2=3.2A$			0s	μ

Switching Time Test Circuit



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