

**2SC5302**

## Ultrahigh-Definition CRT Display Horizontal Deflection Output Applications

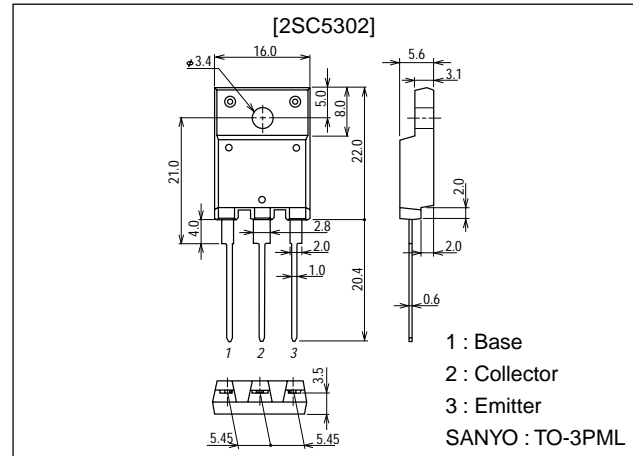
### Features

- 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	Conditions	Ratings	Unit
Collector-to-Base Voltage	$V_{CBO}$		1500	V
Collector-to-Emitter Voltage	$V_{CEO}$		800	V
Emitter-to-Base Voltage	$V_{EBO}$		6	V
Collector Current	$I_C$		15	A
Collector Current (pulse)	$I_{CP}$		35	A
Collector Dissipation	$P_C$		3	W
		$T_c=25^\circ\text{C}$	75	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	$I_{CES}$	$V_{CE}=1500\text{V}, R_{BE}=0$			1.0	mA
Collector Sustain Voltage	$V_{CEO(sus)}$	$I_C=100\text{mA}, I_B=0$	800			V
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=4\text{V}, I_C=0$			1.0	mA
Collector Cutoff Current	$I_{CBO}$	$V_{CB}=800\text{V}, I_E=0$			10	$\mu\text{A}$
DC Current Gain	$h_{FE1}$	$V_{CE}=5\text{V}, I_C=1.0\text{A}$	20		30	
	$h_{FE2}$	$V_{CE}=5\text{V}, I_C=12\text{A}$	4		7	

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■ Any and all SANYO products described or contained herein do not have specifications that can handle applications that require extremely high levels of reliability, such as life-support systems, aircraft's control systems, or other applications whose failure can be reasonably expected to result in serious physical and/or material damage. Consult with your SANYO representative nearest you before using any SANYO products described or contained herein in such applications.

■ SANYO assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all SANYO products described or contained herein.

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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=12A, I_B=3A$			5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=12A, I_B=3A$			1.5	V
Storage Time	$t_{stg}$	$I_C=8A, I_{B1}=1.6A, I_{B2}=-3.2A$			3.0	$\mu s$
Fall Time	$t_f$	$I_C=8A, I_{B1}=1.6A, I_{B2}=-3.2A$			0.2	$\mu s$

## Switching Time Test Circuit

