

**2SC5047**

Ultrahigh-Definition CRT Display Horizontal Deflection Output Applications

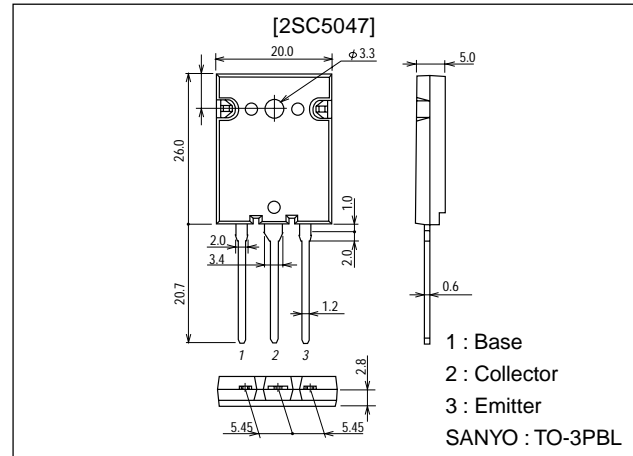
Features

- High speed ($t_f=100\text{ns typ}$).
- High reliability (Adoption of HVP process).
- High breakdown voltage ($V_{CBO}=1600\text{V}$).
- Adoption of MBIT process.

Package Dimensions

unit:mm

2048B



Specifications

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

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}		6	V
Collector Current	I_C		25	A
Collector Current (Pulse)	I_{CP}		50	A
Collector Dissipation	P_C		3.5	W
		$T_c=25^\circ\text{C}$	250	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_{CBO}	$V_{CB}=800\text{V}, I_E=0$			10	μA
	I_{CES}	$V_{CE}=1600\text{V}, R_{BE}=0$			1.0	mA
Collector-to-Emitter 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-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=20\text{A}, I_B=5\text{A}$			5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=20\text{A}, I_B=5\text{A}$			1.5	V

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■ 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	
DC Current Gain	h_{FE1}	$V_{CE}=5V, I_C=1A$	15		25	
	h_{FE2}	$V_{CE}=5V, I_C=20A$	4		7	
Storage Time	t_{stg}	$I_C=12A, I_{B1}=2A, I_{B2}=-6A$			2.0	μs
Fall Time	t_f	$I_C=12A, I_{B1}=2A, I_{B2}=-6A$		0.1	0.2	μs

Switching Time Test Circuit

