NPN Triple Diffused Planar Silicon Transistor



2SC5264

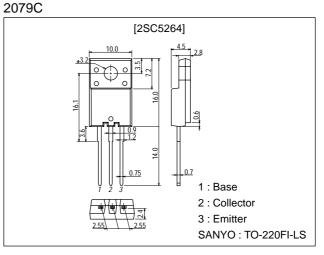
# **Inverter Lighting Applications**

## **Features**

- · High breakdown voltage ( $V_{CBO}$ =1000V).
- $\cdot$  High reliability (Adoption of HVP process).
- $\cdot$  Adoption of MBIT process.

# **Package Dimensions**

unit:mm



# **Specifications**

### Absolute Maximum Ratings at $Ta = 25^{\circ}C$

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V <sub>CBO</sub>		1000	V
Collector-to-Emitter Voltage	VCEO		450	V
Emitter-to-Base Voltage	VEBO		9	V
Collector Current	ι <sub>C</sub>		5	A
Collector Current (Pulse)	ICP		10	A
Collector Dissipation	Da		2	W
	PC	Tc=25°C	30	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

#### **Electrical Characteristics** at $Ta = 25^{\circ}C$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Unit
Collector Cutoff Current	I <sub>CBO</sub>	V <sub>CB</sub> =450V, I <sub>E</sub> =0			10	μΑ
	ICES	V <sub>CE</sub> =1000V, R <sub>BE</sub> =0			1.0	mA
Collector-to-Emitter Sustain Voltage	V <sub>CEO(sus)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> =0	450			V
Emitter Cutoff Current	IEBO	V <sub>EB</sub> =9V, I <sub>C</sub> =0			1.0	mA
Collector-to-Emitter Saturation Voltage	VCE(sat)	I <sub>C</sub> =2.5A, I <sub>B</sub> =0.5A			1.0	V
Base-to-Emitter Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =2.5A, I <sub>B</sub> =0.5A			1.5	V

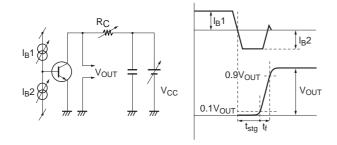
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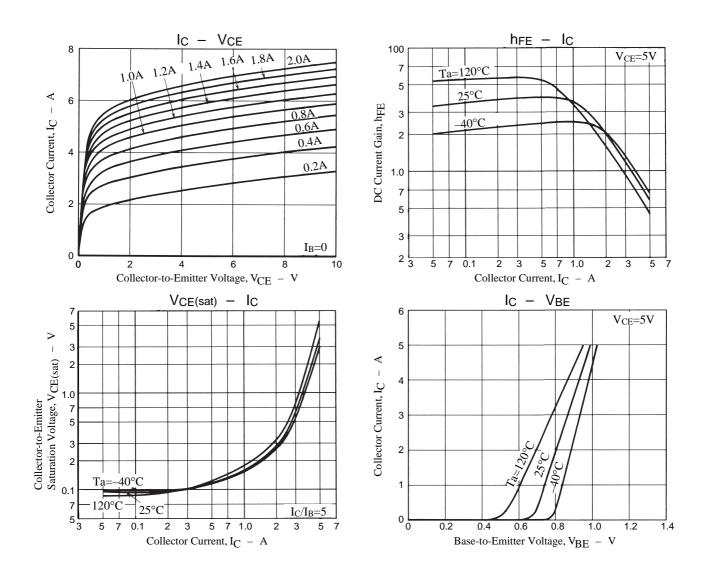
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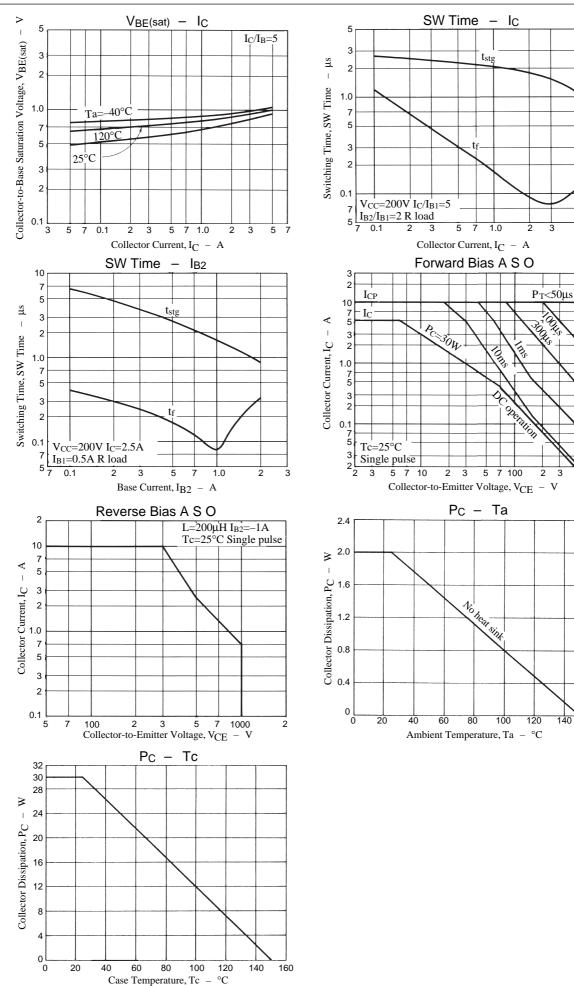
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Unit
DC Current Gain	h <sub>FE</sub> 1	V <sub>CE</sub> =5V, I <sub>C</sub> =0.3A	30	40	50	
	h <sub>FE</sub> 2	V <sub>CE</sub> =5V, I <sub>C</sub> =2.0A	10			
Storage Time	<sup>t</sup> stg	I <sub>C</sub> =2.5A, I <sub>B1</sub> =0.5A, I <sub>B2</sub> =-1.0A			2.5	μs
Fall Time	t <sub>f</sub>	I <sub>C</sub> =2.5A, I <sub>B1</sub> =0.5A, I <sub>B2</sub> =-1.0A			0.15	μs

## **Switching Time Test Circuit**







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