NPN Triple Diffused Planar Silicon Transistor



2SC5305LS

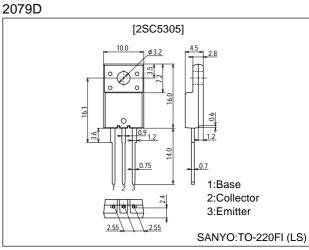
# **Inverter Lighting Applications**

### **Features**

- · High breakdown voltage ( $V_{CBO}$ =1200V).
- $\cdot$  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	VCBO		1200	V
Collector-to-Emitter Voltage	VCEO		600	V
Emitter-to-Base Voltage	VEBO		9	V
Collector Current	ΙC		6	A
Collector Current (pulse)	ICP		12	A
Collector Dissipation	D-		2	W
	PC	Tc=25°C	35	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

#### Electrical Characteristics at Ta=25°C

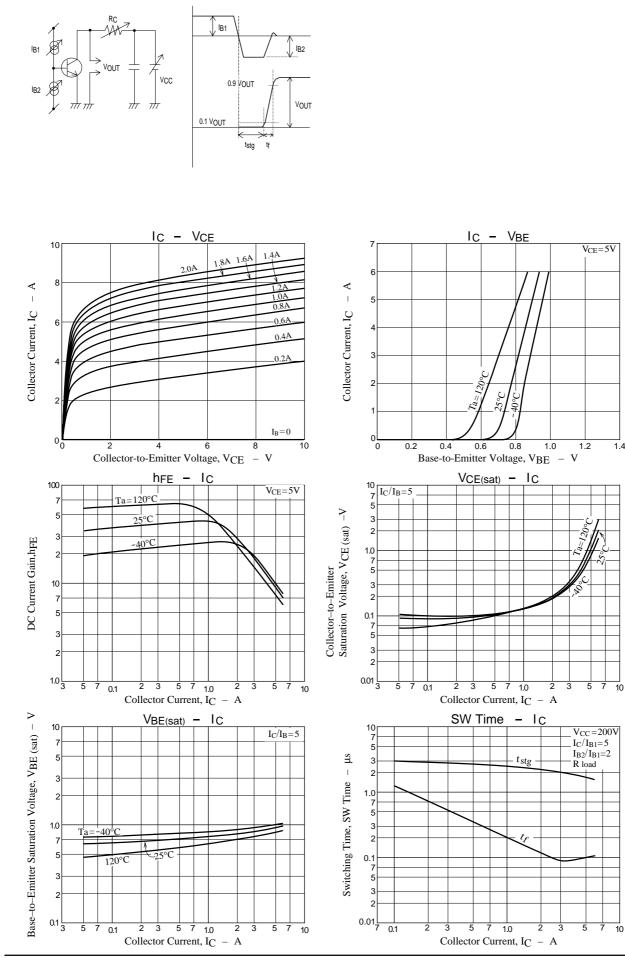
Parameter	Symbol	Conditons	Ratings			Unit
			min	typ	max	Unit
Collector Cutoff Current	I <sub>CBO</sub>	V <sub>CB</sub> =600V, I <sub>E</sub> =0			10	μΑ
Collector Cutoff Current	ICES	V <sub>CE</sub> =1200V, R <sub>BE</sub> =0			1.0	mA
Collector Saturation Voltage	V <sub>CEO(sus)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> =0	600			V
Emitter Cutoff Current	IEBO	V <sub>EB</sub> =9V, I <sub>C</sub> =0			1.0	mA
Collector-to-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =3.0A, I <sub>B</sub> =0.6A			1.0	V
Base-to-Emitter Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =3.0A, I <sub>B</sub> =0.6A			1.5	V
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> =2.5A	10			
Storage Time	t <sub>stg</sub>	I <sub>C</sub> =3.5A, I <sub>B1</sub> =0.6A, I <sub>B2</sub> =-1.2A			2.5	μs
Fall Time	t <sub>f</sub>	I <sub>C</sub> =3.5A, I <sub>B1</sub> =0.6A, I <sub>B2</sub> =-1.2A			0.15	μs

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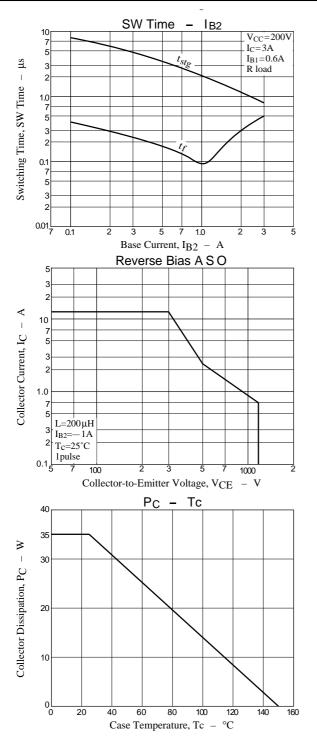
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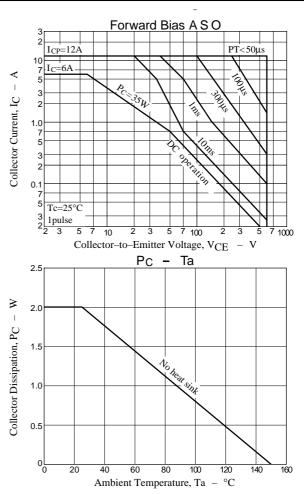
### **Switching Time Test Circuit**



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