

# 2SC5304LS

## **Inverter Lighting Applications**

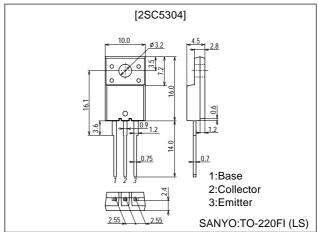
#### **Features**

- · High breakdown voltage (V<sub>CBO</sub>=1000V).
- · High reliability (Adoption of HVP process).
- · Adoption of MBIT process.

### **Package Dimensions**

unit:mm

2079D



### **Specifications**

**Absolute Maximum Ratings** at Ta = 25°C

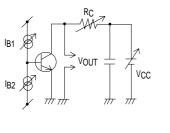
Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V <sub>CBO</sub>		1000	V
Collector-to-Emitter Voltage	V <sub>CEO</sub>		450	V
Emitter-to-Base Voltage	V <sub>EBO</sub>		9	V
Collector Current	lc		7	Α
Collector Current (pulse)	l <sub>CP</sub>		14	Α
Collector Dissipation	P.		2	W
	PC	Tc=25°C	35	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

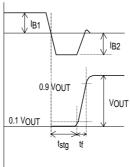
#### Electrical Characteristics at Ta=25°C

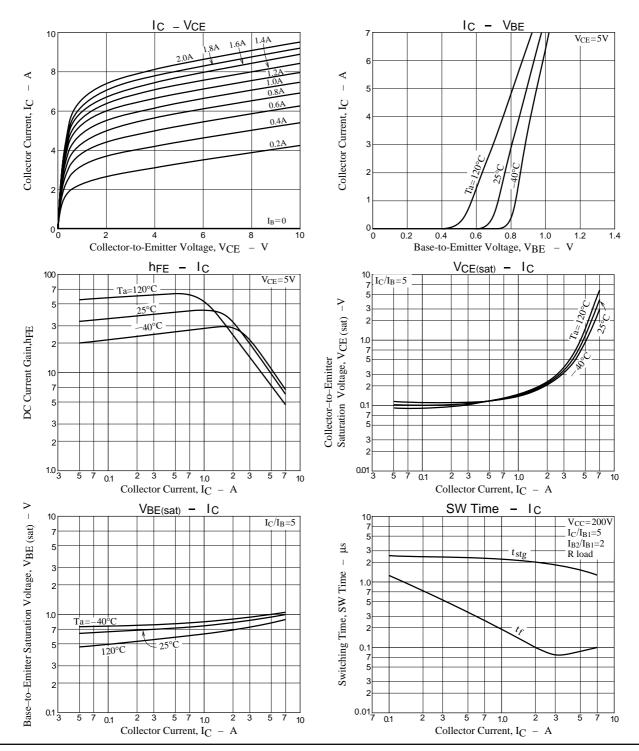
Parameter	Symbol	Conditons	Ratings			Unit
			min	typ	max	Offic
Collector Cutoff Current	I <sub>CBO</sub>	V <sub>CB</sub> =450V, I <sub>E</sub> =0			10	μΑ
Collector Cutoff Current	ICES	V <sub>CE</sub> =1000V, R <sub>BE</sub> =0			1.0	mA
Collector Saturation Voltage	V <sub>CEO(sus)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> =0	450			V
Emitter Cutoff Current	I <sub>EBO</sub>	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> =3.5A, I <sub>B</sub> =0.7A			1.0	V
Base-to-Emitter Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =3.5A, I <sub>B</sub> =0.7A			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	
De Current Gain	h <sub>FE</sub> 2	V <sub>CE</sub> =5V, I <sub>C</sub> =3.0A	10			
Storage Time	t <sub>stg</sub>	I <sub>C</sub> =3.5A, I <sub>B1</sub> =0.7A, I <sub>B2</sub> =-1.4A			2.5	μs
Fall Time	t <sub>f</sub>	I <sub>C</sub> =3.5A, I <sub>B1</sub> =0.7A, I <sub>B2</sub> =-1.4A			0.15	μs

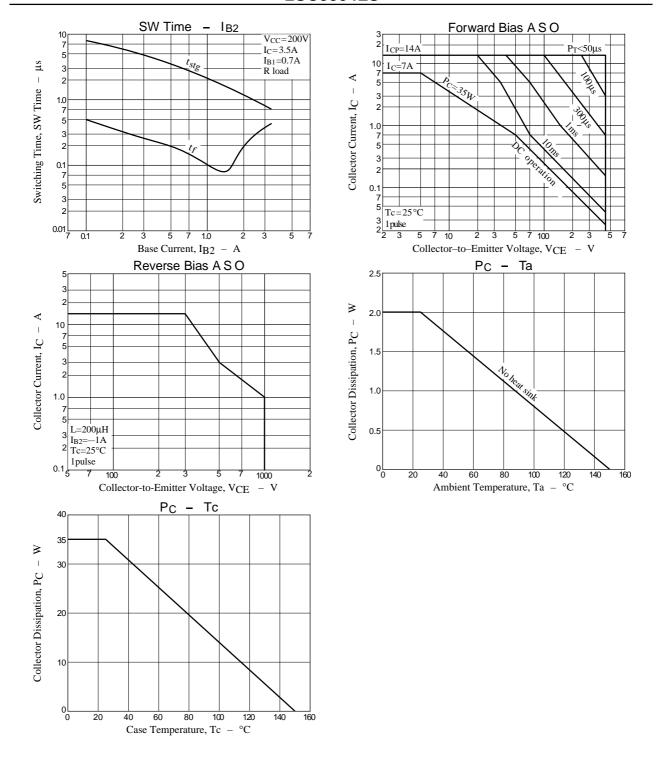
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#### **Switching Time Test Circuit**









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