Ordering number:EN5883

NPN Triple Diffused Planar Silicon Transistor

2SC5304

Inverter Lighting Applications

Features

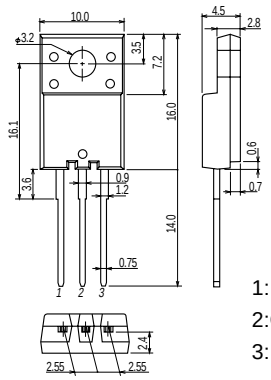
- High breakdown voltage (VCBO=1000V).
- High reliability (Adoption of HVP process).
- Adoption of MBIT process.

Package Dimensions

unit:mm

2079B

[2SC5304]



1:Base
2:Collector
3:Emitter

SANYO:TO-220FI (LS)

Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		1000	V
Collector-to-Emitter Voltage	V_{CEO}		450	V
Emitter-to-Base Voltage	V_{EBO}		9	V
Collector Current	I_C		7	A
Collector Current (pulse)	I_{CP}		14	A
Collector Dissipation	P_C		2	W
		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	
Collector Cutoff Current	I_{CBO}	V_{CB}=450V, I_E=0			10	μA
Collector Cutoff Current	I_{CES}	V_{CE}=1000V, R_{BE}=0			1.0	mA
Collector Saturation Voltage	$V_{CEO(sus)}$	I_C=100mA, I_B=0	450			V
Emitter Cutoff Current	I_{EBO}	V_{EB}=9V, I_C=0			1.0	mA
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=3.5A, I_B=0.7A			1.0	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=3.5A, I_B=0.7A			1.5	V
DC Current Gain	$h_{FE}1$	V_{CE}=5V, I_C=0.3A	30	40	50	
	$h_{FE}2$	V_{CE}=5V, I_C=3.0A	10			
Storage Time	t_{stg}	I_C=3.5A, I_{B1}=0.7A, I_{B2}=–1.4A			2.5	μs
Fall Time	t_f	I_C=3.5A, I_{B1}=0.7A, I_{B2}=–1.4A			0.15	μs

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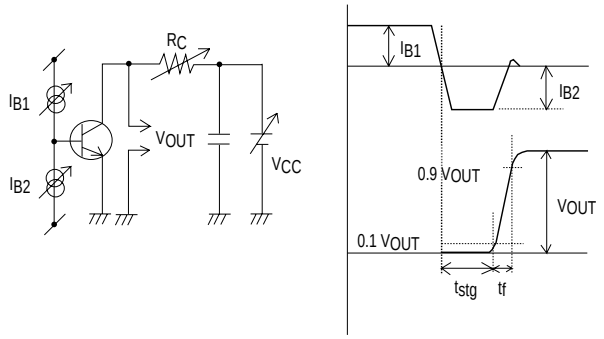
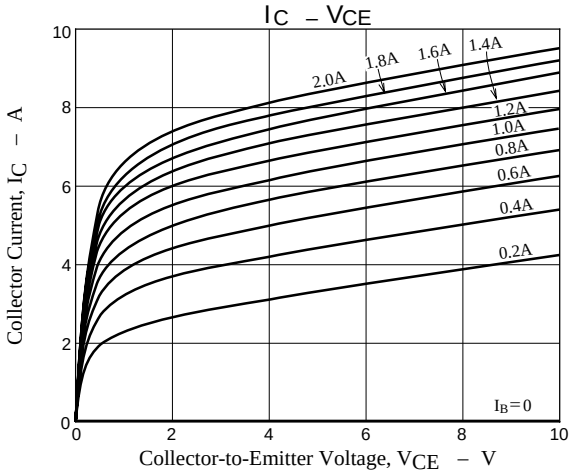
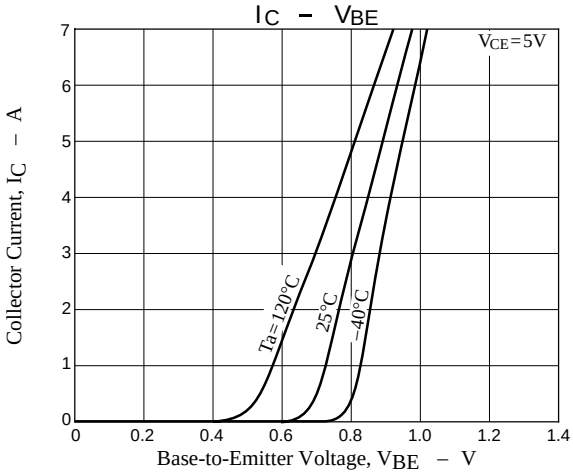
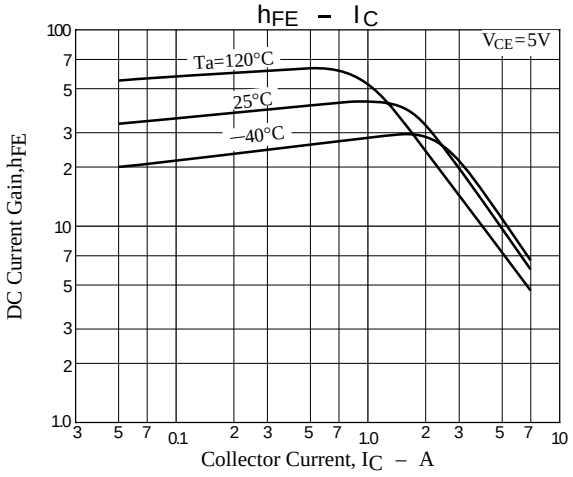
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

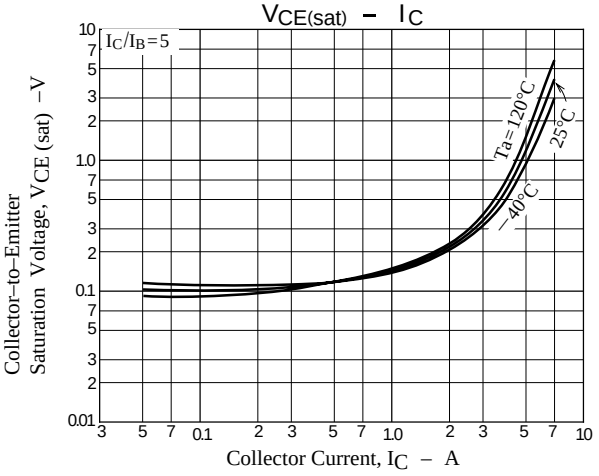
Switching Time Test Circuit

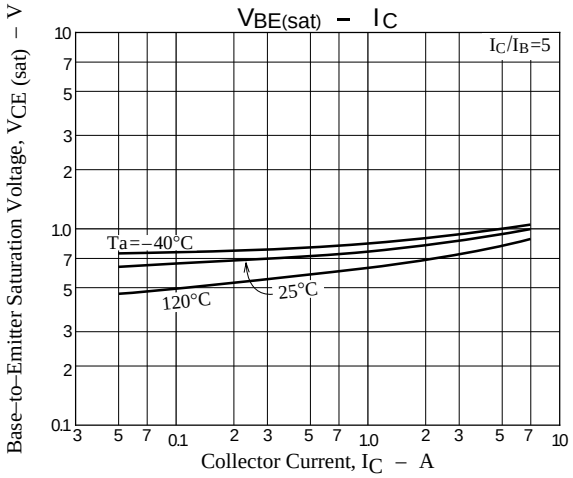


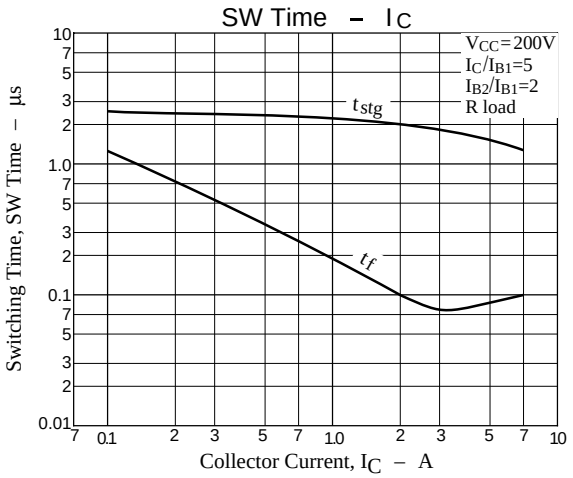


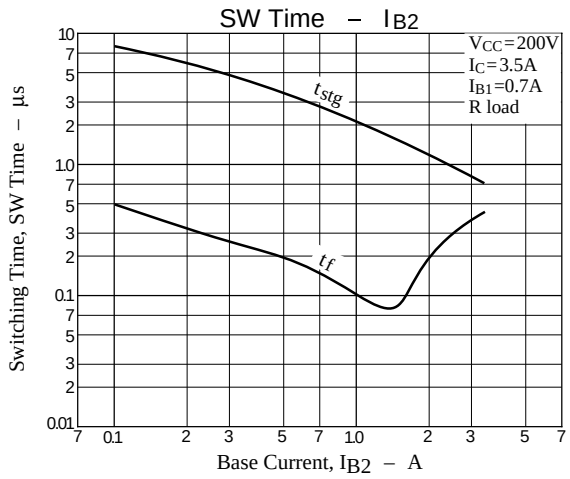


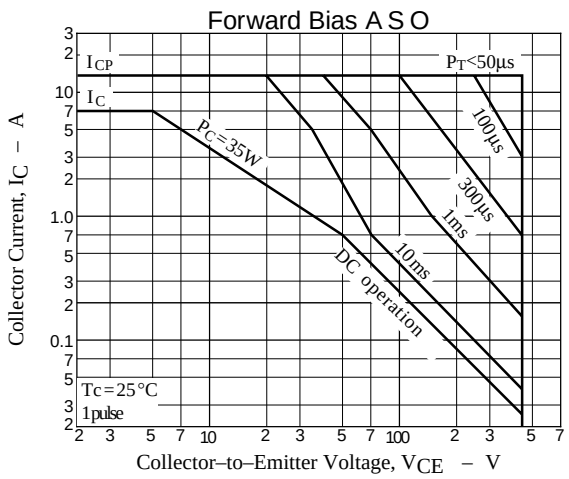


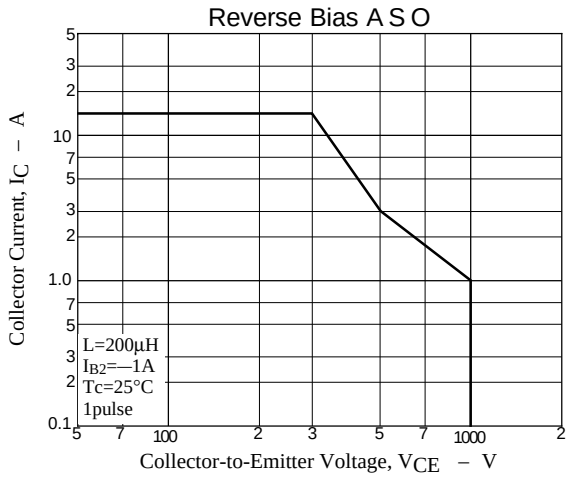


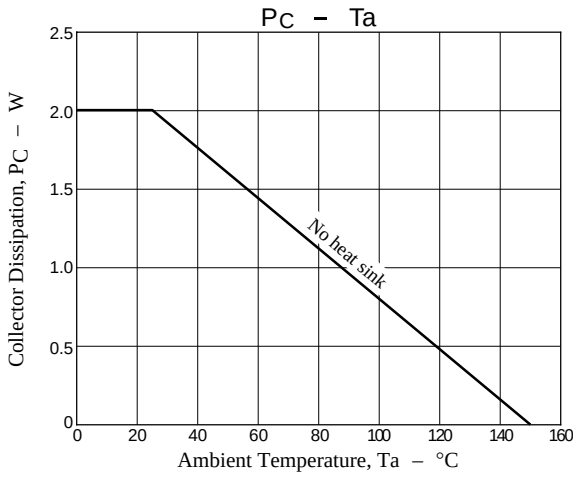


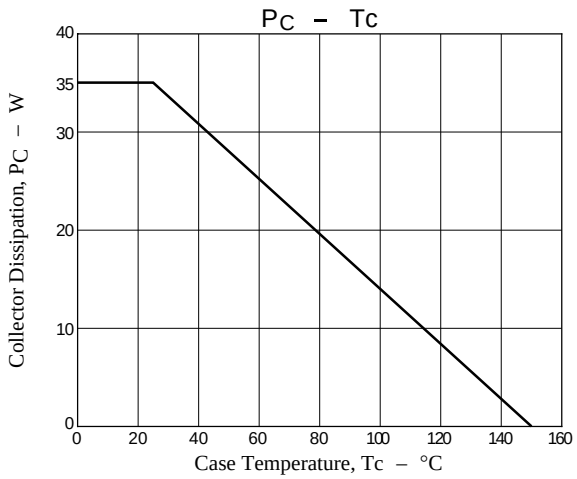












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