Ordering number:ENN5287

NPN Triple Diffused Planar Silicon Transistor

2SC5264

Inverter Lighting Applications

Features

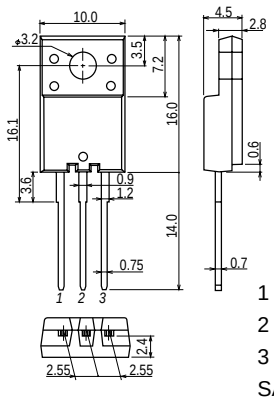
- High breakdown voltage (V_{CBO}=1000V).
- High reliability (Adoption of HVP process).
- Adoption of MBIT process.

Package Dimensions

unit:mm

2079C

[2SC5264]



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		5	A
Collector Current (Pulse)	I_{CP}		10	A
Collector Dissipation	P_C		2	W
		Tc=25˚C	30	W
Junction Temperature	Tj		150	˚C
Storage Temperature	Tstg		–55 to +150	˚C

Electrical Characteristics at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	V_{CB}=450V, I_E=0			10	μA
	I_{CES}	V_{CE}=1000V, R_{BE}=0			1.0	mA
Collector-to-Emitter Sustain 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=2.5A, I_B=0.5A			1.0	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=2.5A, I_B=0.5A			1.5	V

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

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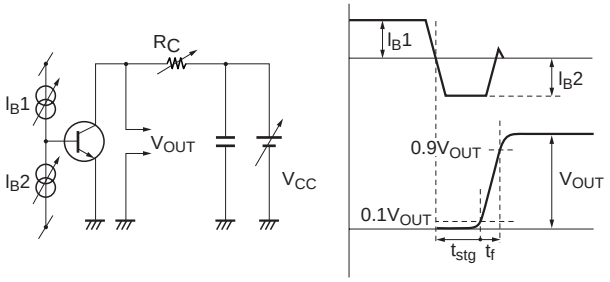
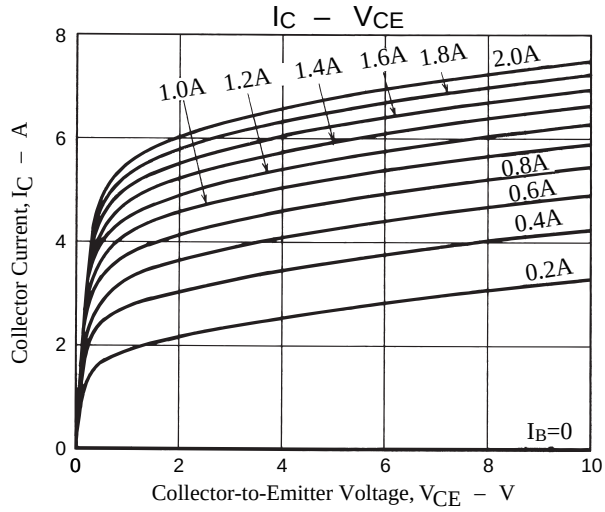
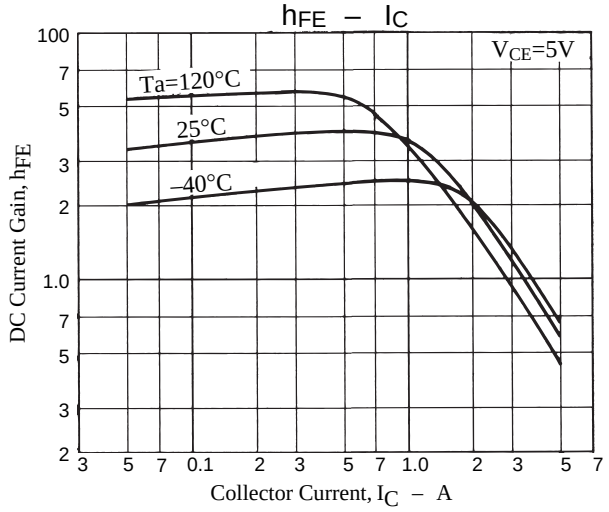
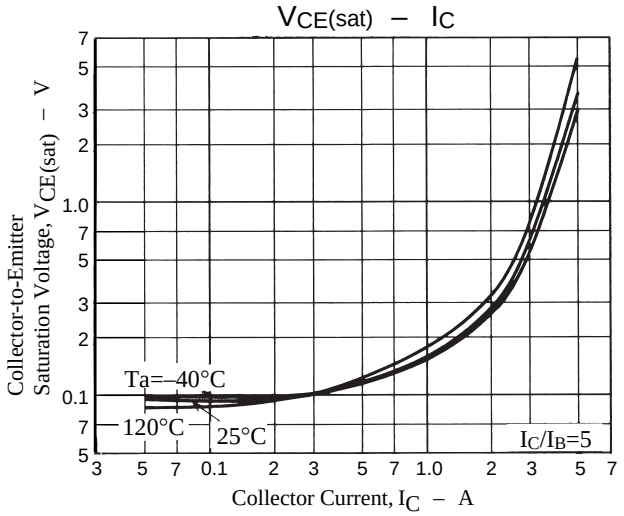
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
DC Current Gain	$h_{FE}1$	V_{CE}=5V, I_C=0.3A	30	40	50	
	$h_{FE}2$	V_{CE}=5V, I_C=2.0A	10			
Storage Time	t_{stg}	I_C=2.5A, I_{B1}=0.5A, I_{B2}=–1.0A			2.5	μs
Fall Time	t_f	I_C=2.5A, I_{B1}=0.5A, I_{B2}=–1.0A			0.15	μs

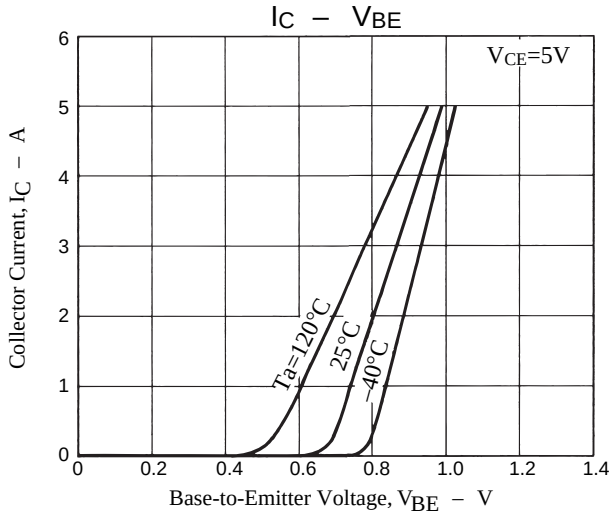
Switching Time Test Circuit

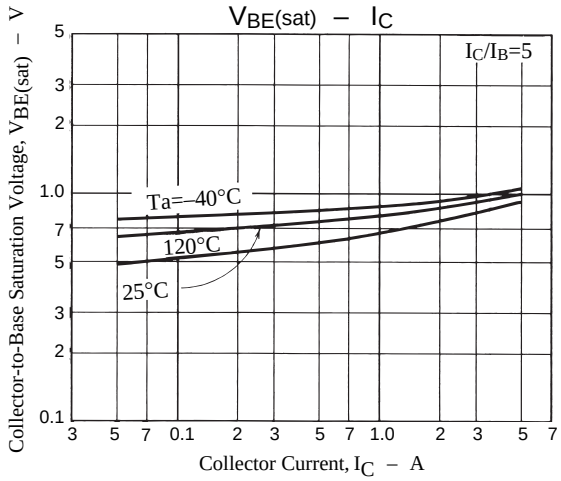


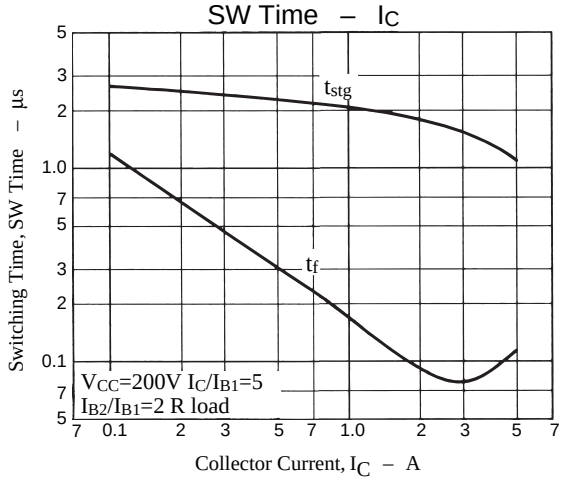


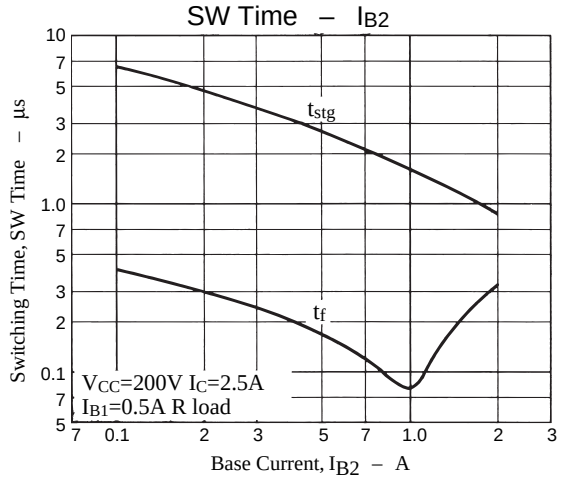


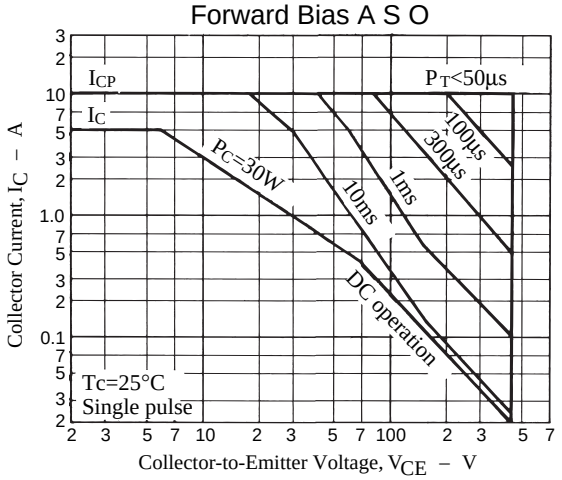


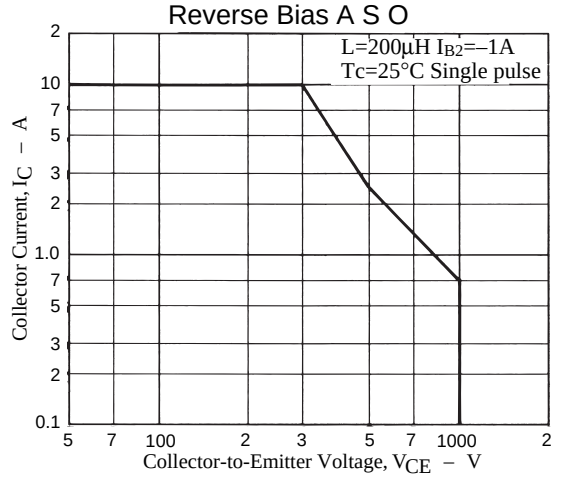


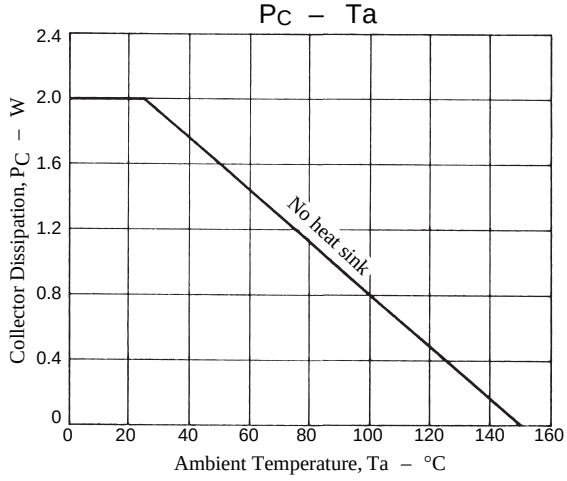

VBE(sat) – IC
IC/IB=5
Ta=–40°C
120°C
25°C
Collector-to-Base Saturation Voltage, VBE(sat) – V
Collector Current, IC – A

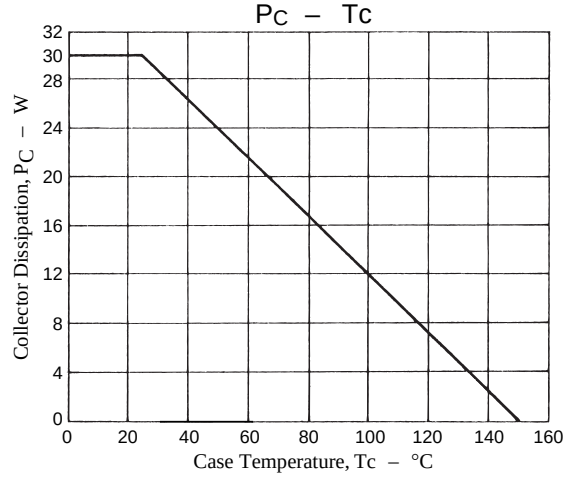

SW Time – IC
tstg
tf
VCC=200V IC/IB1=5
IB2/IB1=2 R load
Switching Time, SW Time – µs
Collector Current, IC – A


SW Time – IB2
tstg
tf
VCC=200V IC=2.5A
IB1=0.5A R load
Switching Time, SW Time – µs
Base Current, IB2 – A


Forward Bias A S O
ICP
IC
PT<50µs
100µs
300µs
1ms
10ms
DC operation
PC=30W
Tc=25°C
Single pulse
Collector Current, IC – A
Collector-to-Emitter Voltage, VCE – V


Reverse Bias A S O
L=200µH IB2=–1A
Tc=25°C Single pulse
Collector Current, IC – A
Collector-to-Emitter Voltage, VCE – V


PC – Ta
No heat sink
Collector Dissipation, PC – W
Ambient Temperature, Ta – °C


PC – Tc
Collector Dissipation, PC – W
Case Temperature, Tc – °C