Ordering number:ENN6283

NPN Triple Diffused Planar Silicon Transistor

2SC5388

High-Voltage Switching Applications

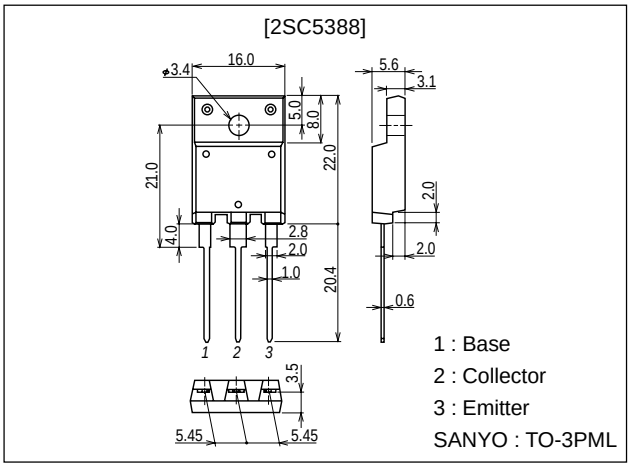
Features

- High speed (Adoption of MBIT process).
- High breakdown voltage (V_{CBO}=1500V).
- High reliability (Adoption of HVP process).
- On-chip damper diode.

Package Dimensions

unit:mm

2039D



Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		1500	V
Collector-to-Emitter Voltage	V_{CEO}		700	V
Emitter-to-Base Voltage	V_{EBO}		5	V
Collector Current	I_C		5	A
Collector Current (Pulse)	I_{CP}		10	A
Base Current	I_B		1	A
Collector Dissipation	P_C		3.0	W
		Tc=25˚C	50	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}=700V, I_E=0			0.1	mA
Emitter Cutoff Current	I_{EBO}	V_{EB}=5V, I_C=0			600	mA
DC Current Gain	$h_{FE}1$	V_{CE}=5V, I_C=1A	100		230	
	$h_{FE}2$	V_{CE}=5V, I_C=5A	50		150	

Continued on next page.

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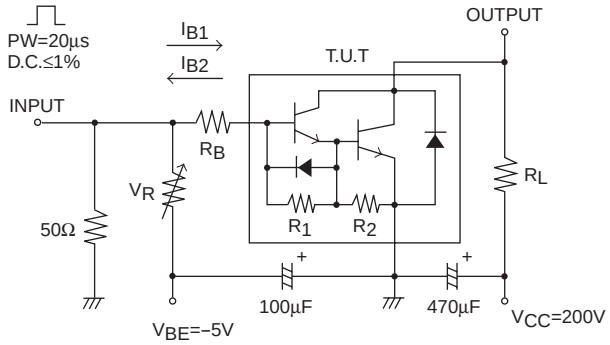
■ SANYO assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges,or other parameters) listed in products specifications of any and all SANYO products described or contained herein.

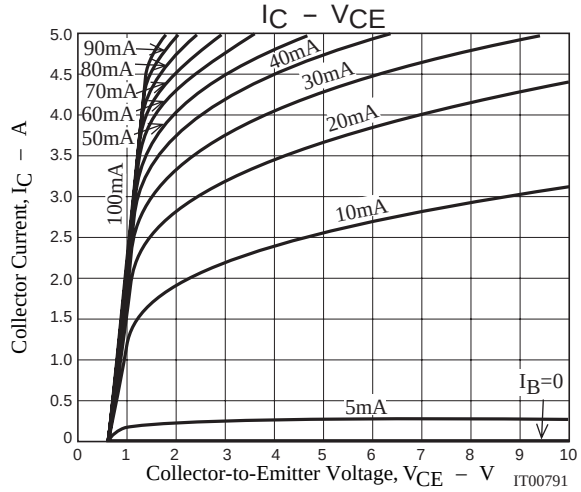
SANYO Electric Co.,Ltd. Semiconductor Company
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

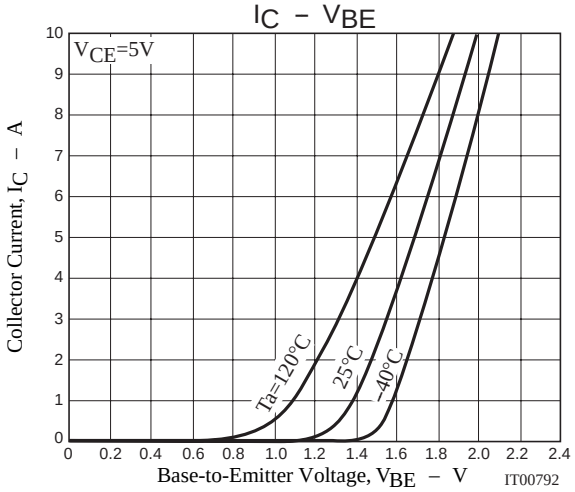
Continued from preceding page.

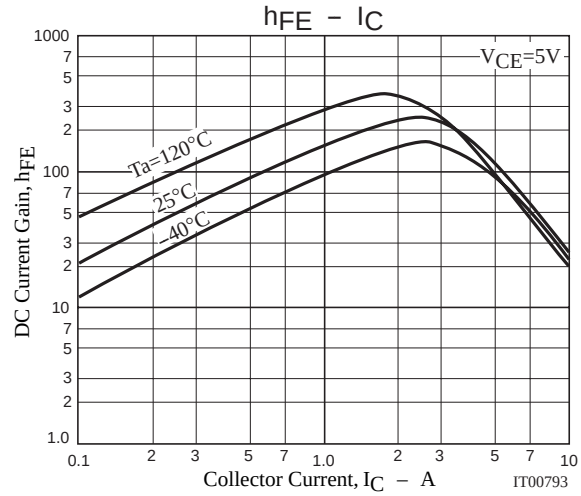
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Sustain Voltage	V_{CEO}(sus)	I_C=100mA, I_B=0	700			V
Collector-to-Emitter Saturation Voltage	V_{CE}(sat)	I_C=5A, I_B=0.5A			1.5	V
Base-to-Emitter Saturation Voltage	V_{BE}(sat)	I_C=5A, I_B=0.5A			2.0	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=1mA, I_E=0	1500			V
Diode Forward Voltage	V_F	I_{EC}=5A			2.0	V
Fall Time	t_f	I_C=5A, I_{B1}=0.5A, I_{B2}=–2.5A, V_{CC}=200V, R_L=40Ω			0.8	μs
Storage Time	t_{stg}	I_C=5A, I_{B1}=0.5A, I_{B2}=–2.5A, V_{CC}=200V, R_L=40Ω			3	μs

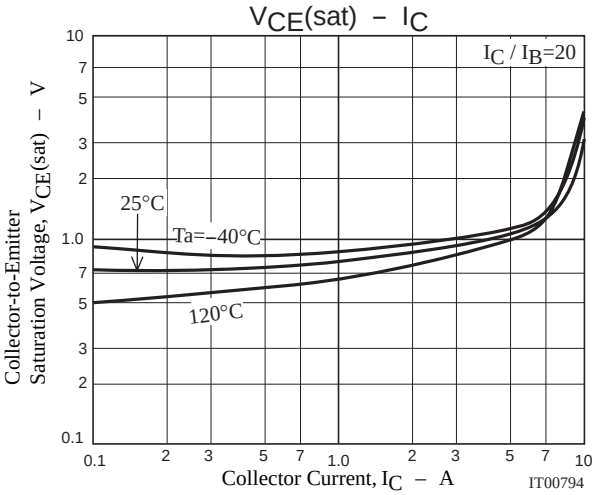
Switching Time Test Circuit



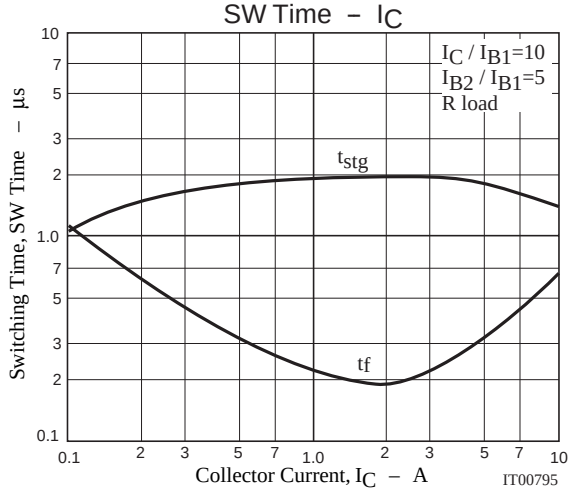




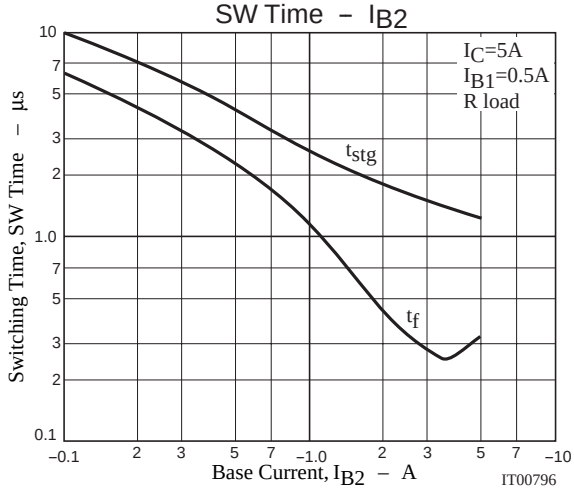




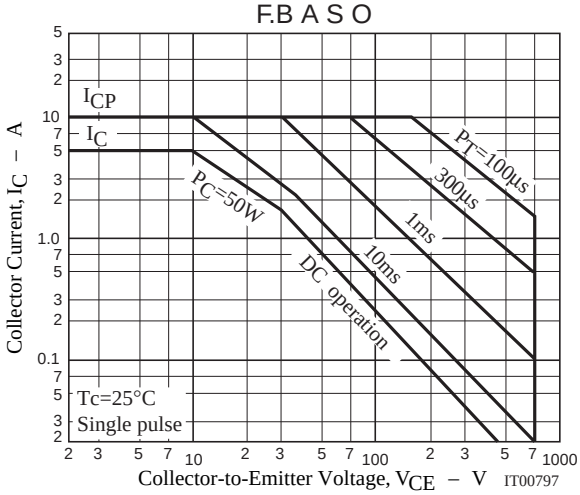
SW Time – I_C



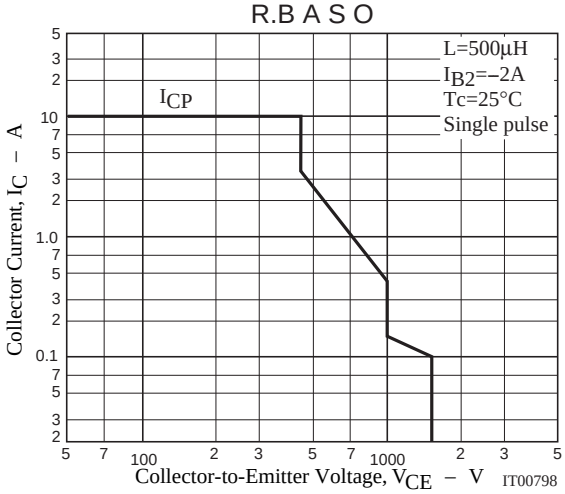
SW Time – I_{B2}



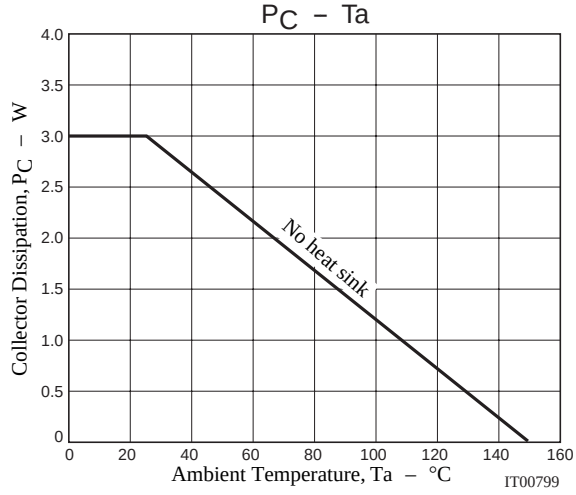
F.B A S O



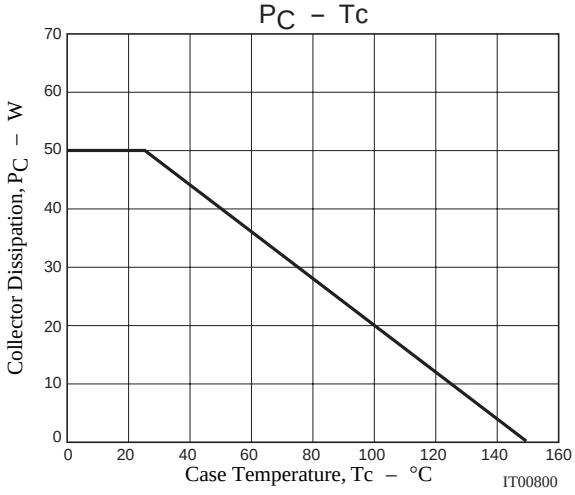
R.B A S O



P_C – Ta



P_C – Tc



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