Ordering number:5794

NPN Triple Diffused Planar Silicon Transistor

2SD2578

Color TV Horizontal Deflection Output Applications

Features

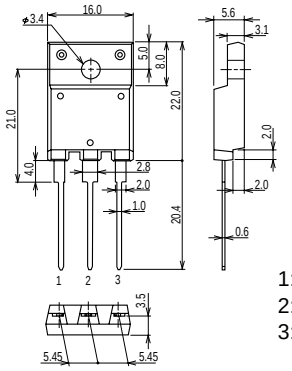
- High speed.
- High breakdown voltage (V_{CBO}=1500V).
- High reliability (Adoption of HVP process).
- Adoption of MBIT process.
- On-chip damper diode.

Package Dimensions

unit:mm

2039D

[2SD2578]



1:Base
2:Collector
3:Emitter

SANYO:TO3PML

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}		800	V
Emitter-to-Base Voltage	V_{EBO}		6	V
Collector Current	I_C		8	A
Collector Current (pulse)	I_{CP}		20	A
Collector Dissipation	P_C		3.0	W
		Tc=25˚C	60	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}=800V, I_E=0			10	μA
Collector Cutoff Current	I_{CES}	V_{CE}=1500V, R_{BE}=0			1.0	mA
Collector Sustain Voltage	$V_{CEO(sus)}$	I_C=100mA, I_B=0	800			V
Emitter Cutoff Current	I_{EBO}	V_{EB}=4V, I_C=0	40		130	mA

Continued on next page.

■ Any and all SANYO products described or contained herein do not have specifications that can handle applications that require extremely high levels of reliability, such as life-support systems, aircraft's control systems, or other applications whose failure can be reasonably expected to result in serious physical and/or material damage. Consult with your SANYO representative nearest you before using any SANYO products described or contained herein in such applications.

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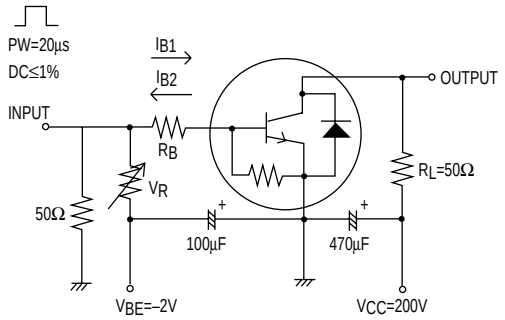
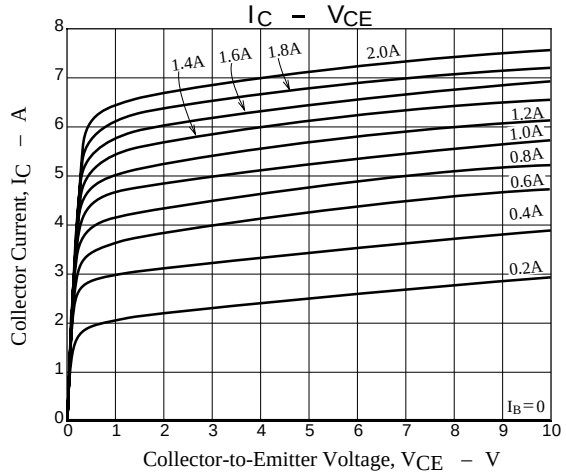
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

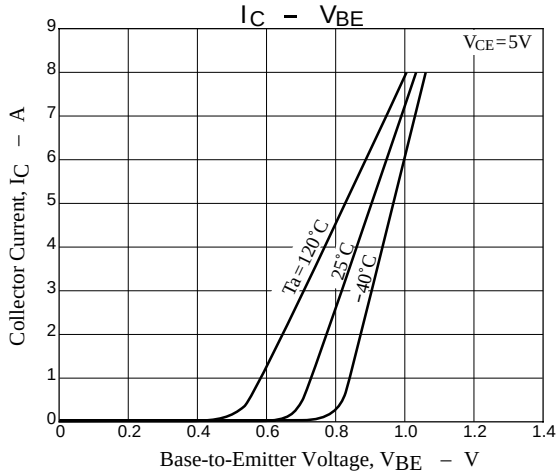
Continued from preceding page.

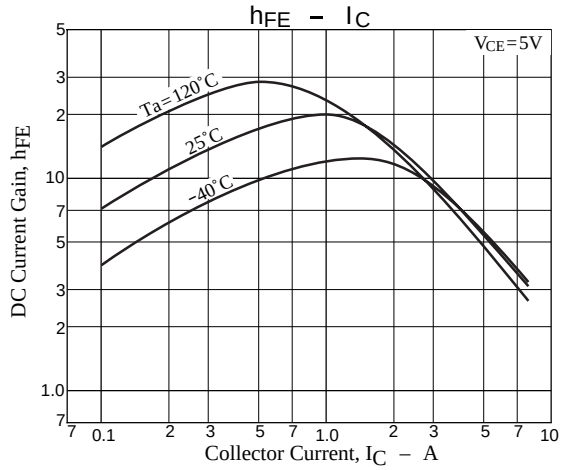
Parameter	Symbol	Conditons	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=5A, I_B=1A			5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=5A, I_B=1A			1.5	V
DC Current Gain	$h_{FE}1$	V_{CE}=5V, I_C=1A	15		30	
	$h_{FE}2$	V_{CE}=5V, I_C=5A	5		8	
Fall Time	t_f	I_C=4A, I_{B1}=0.8A, I_{B2}=–1.6A			0.3	μs

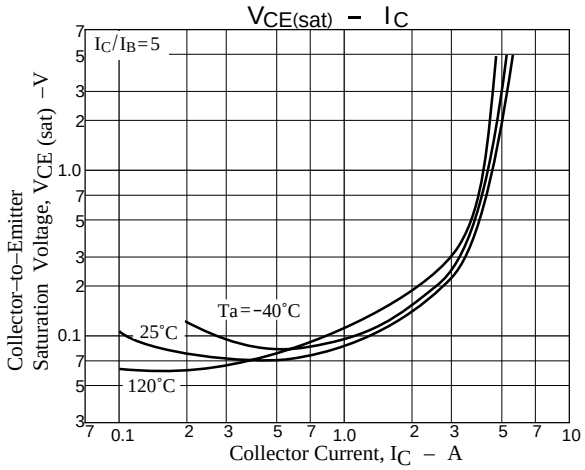
Switching Time Test Circuit



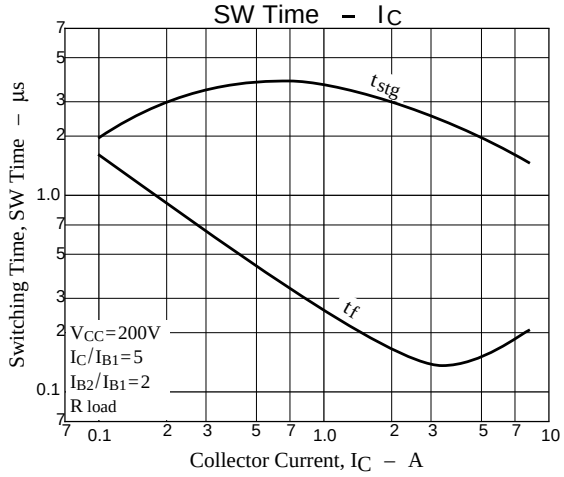




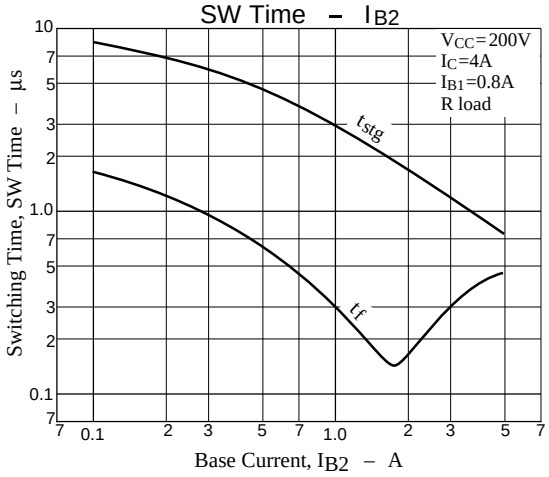




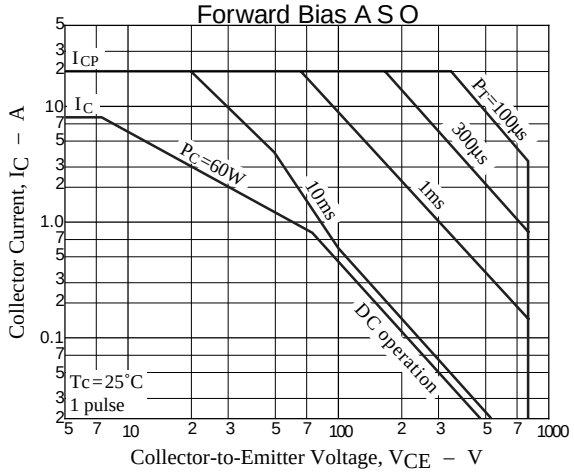
SW Time – I_C



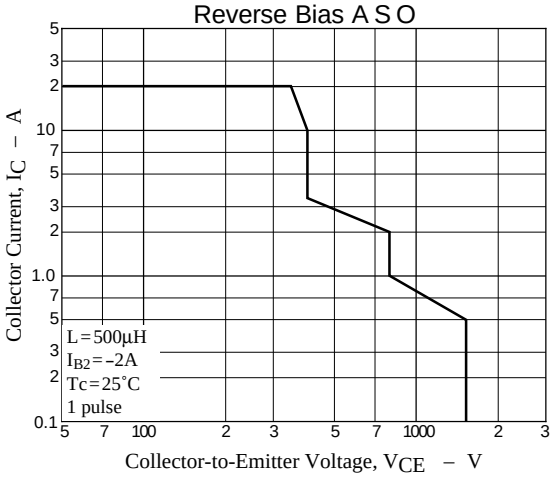
SW Time – I_{B2}



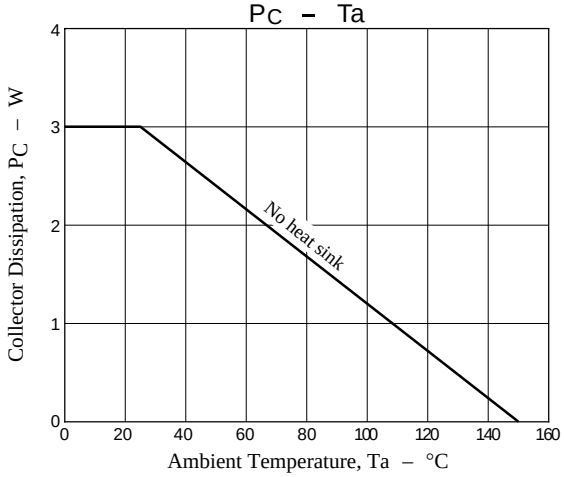
Forward Bias A S O



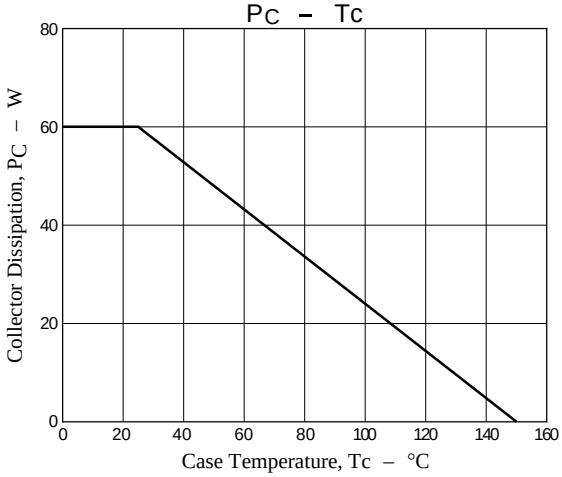
Reverse Bias A S O



PC – Ta



PC – Tc



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