Ordering number:EN6101

NPN Triple Diffused Planar Silicon Transistor

2SC5443

Ultrahigh-Definition CRT Display Horizontal Deflection Output Applications

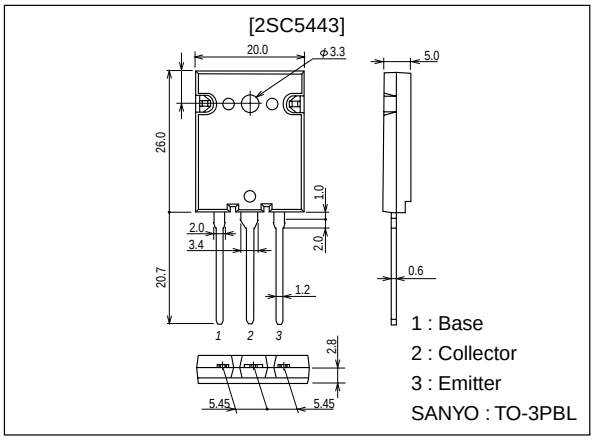
Features

- High speed (t_f=100ns typ).
- High breakdown voltage (V_{CBO}=1500V).
- High reliability (Adoption of HVP process).
- Adoption of MBIT process.

Package Dimensions

unit:mm

2048B



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		20	A
Collector Current (Pulse)	I_{CP}		40	A
Collector Dissipation	P_C		3.5	W
		Tc=25˚C	180	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_{CES}	V_{CE}=1500V, R_{BE}=0			1.0	mA
Collector-to-Emitter Sustain Voltage	$V_{CEO(sus)}$	I_C=100mA, I_B=0	800			V
Emitter Cutoff Current	I_{EBO}	V_{EB}=4V, I_C=0			1.0	mA
Collector Cutoff Current	I_{CBO}	V_{CB}=800V, I_E=0			10	μA
DC Current Gain	$h_{FE}1$	V_{CE}=5V, I_C=1.0A	20		30	
	$h_{FE}2$	V_{CE}=5V, I_C=16A	4		7	

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.

■ 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.

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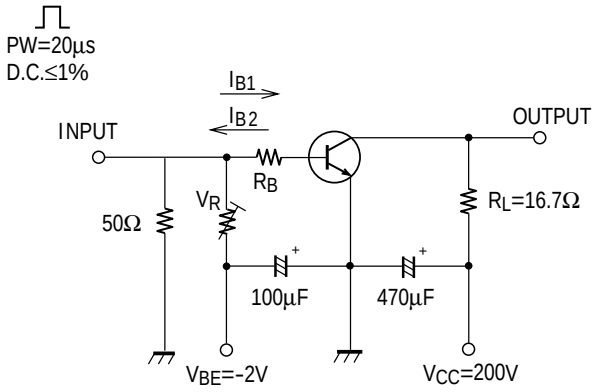
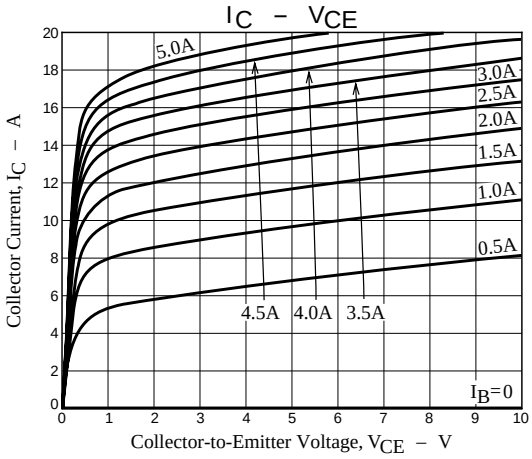
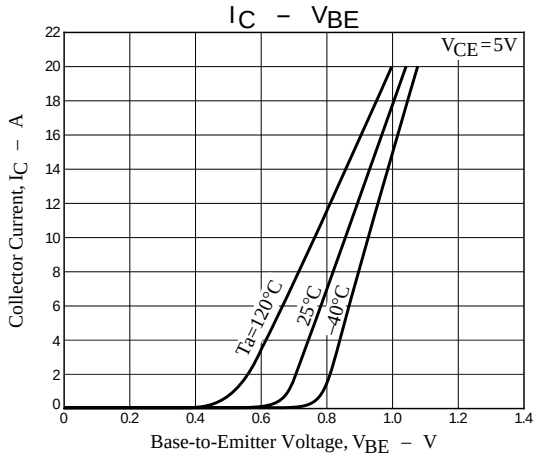
Continued from preceding page.

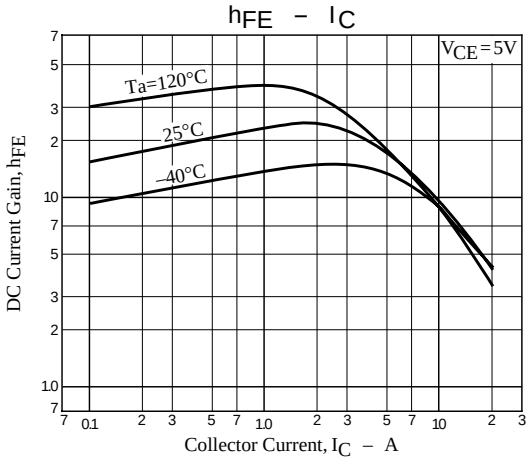
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=16A, I_B=4A			5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=16A, I_B=4A			1.5	V
Storage Time	t_{stg}	I_C=12A, I_{B1}=2.4A, I_{B2}=–4.8A			3.0	μs
Fall Time	t_f	I_C=12A, I_{B1}=2.4A, I_{B2}=–4.8A			0.2	μs

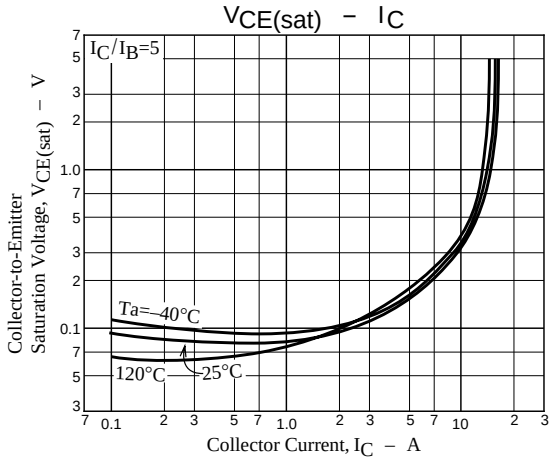
Switching Time Test Circuit











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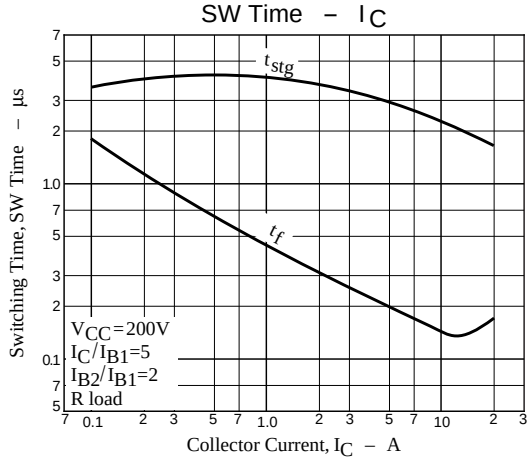
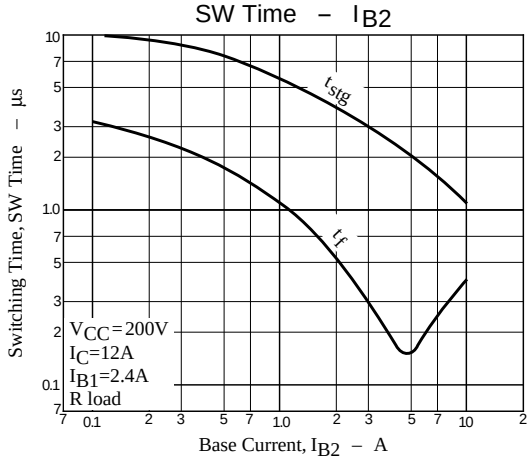
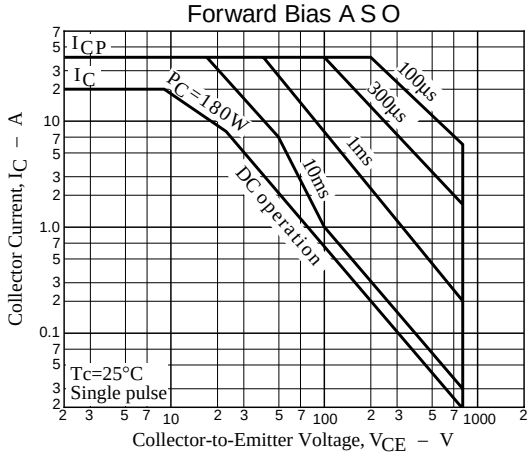
SW Time – I_C



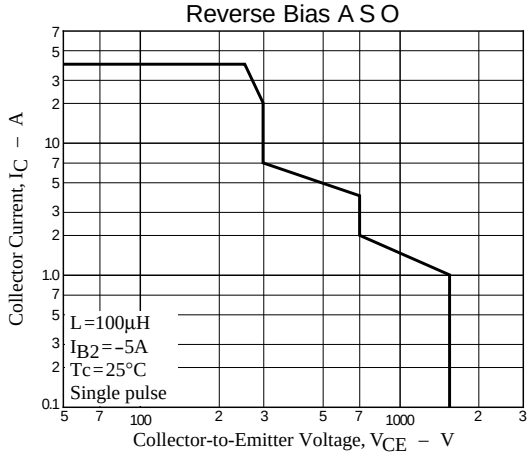
SW Time – I_{B2}



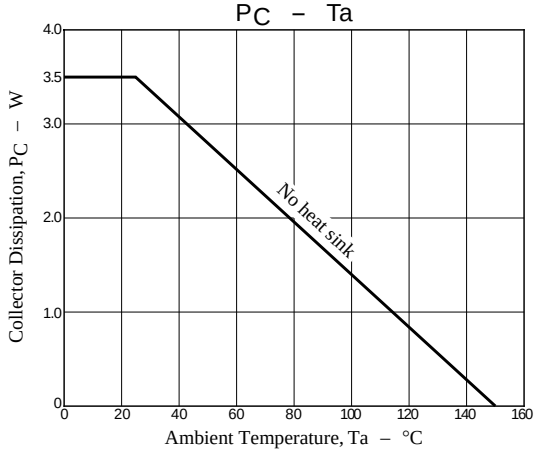
Forward Bias A S O



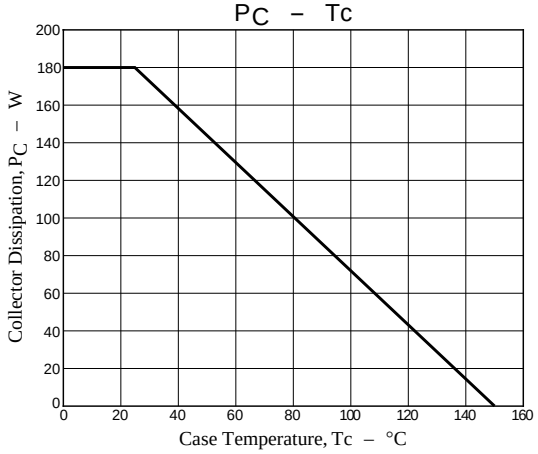
Reverse Bias A S O



P_C – Ta



P_C – Tc



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