

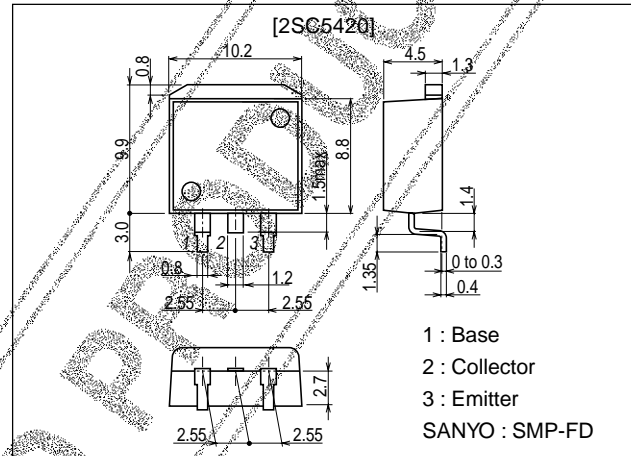
**SANYO****2SC5420****Inverter Lighting Applications****Features**

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

**Package Dimensions**

unit:mm

2069B

**Specifications****Absolute Maximum Ratings at  $T_a = 25^\circ C$** 

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	$P_C$	$T_C=25^\circ C$	1.75	W
Junction Temperature	$T_J$		150	$^\circ C$
Storage Temperature	$T_{stg}$		-55 to +150	$^\circ C$

**Electrical Characteristics at  $T_a = 25^\circ C$** 

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	$I_{CBO}$	$V_{CB}=450V, I_E=0$			10	$\mu A$
	$I_{CES}$	$V_{CE}=1000V, R_{BE}=0$			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

Continued on next page.

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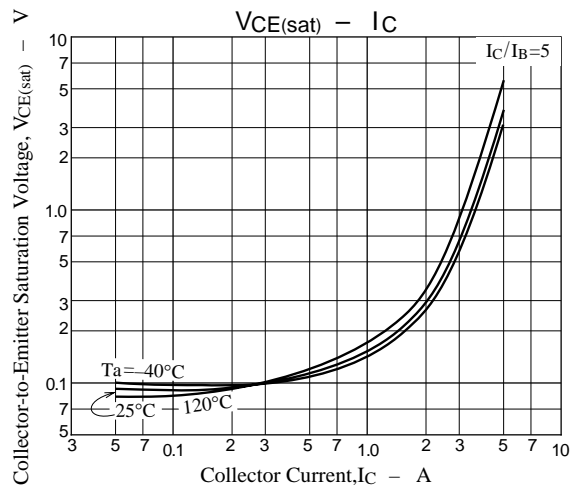
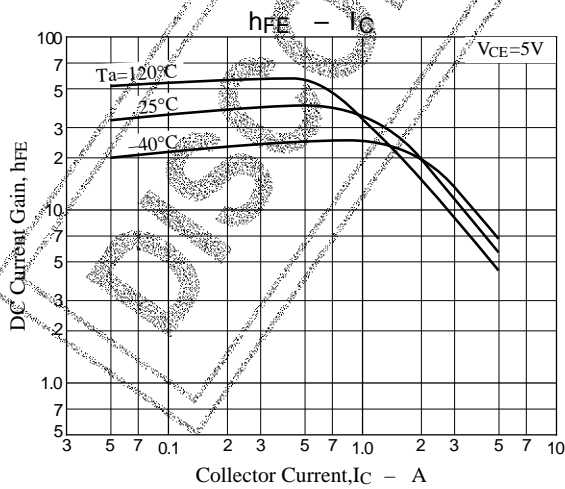
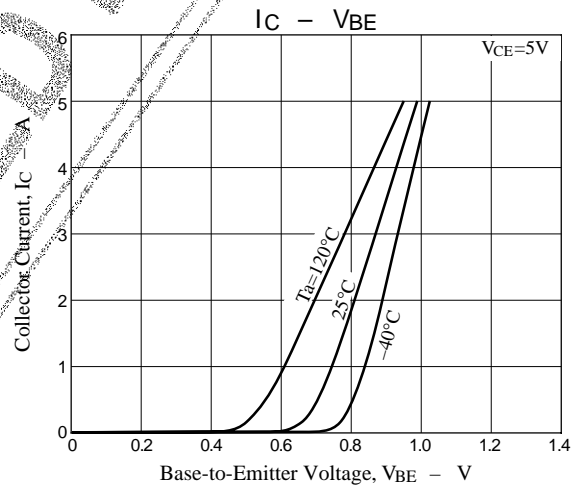
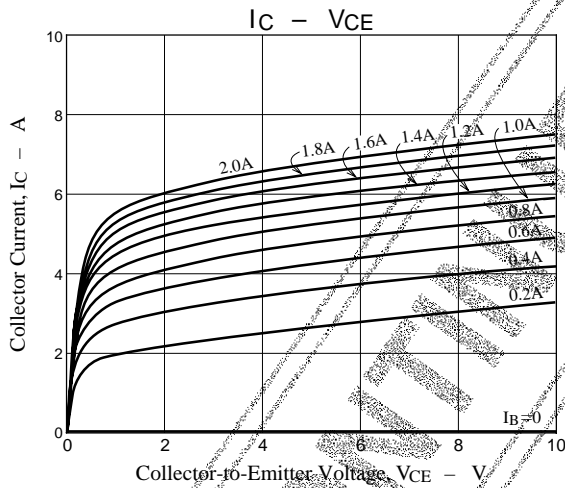
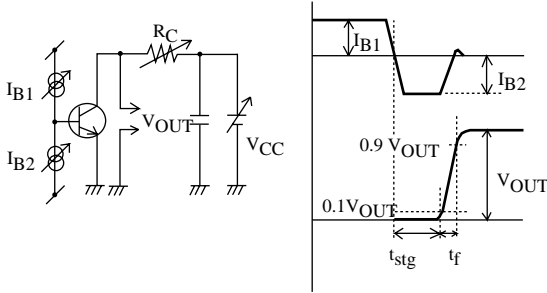
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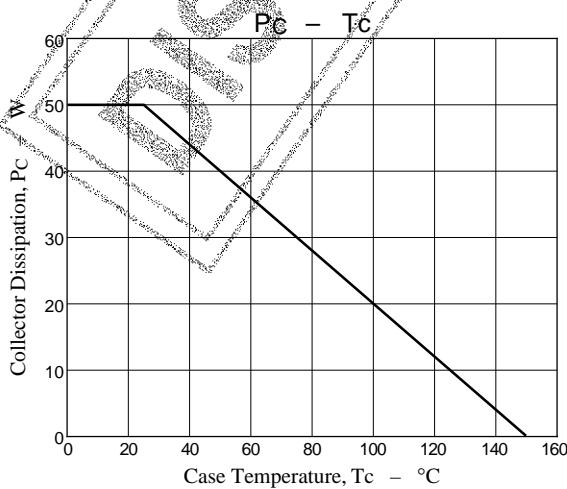
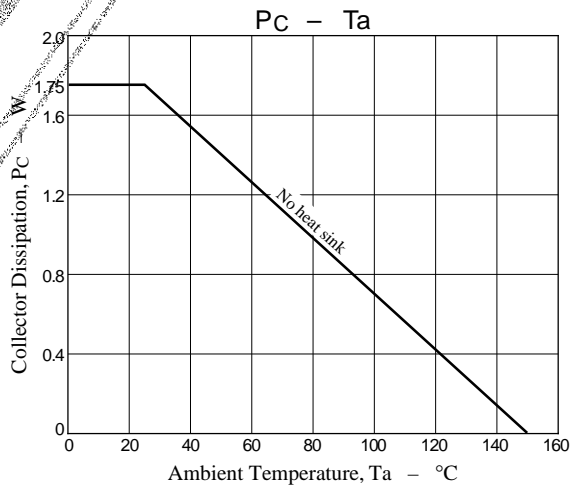
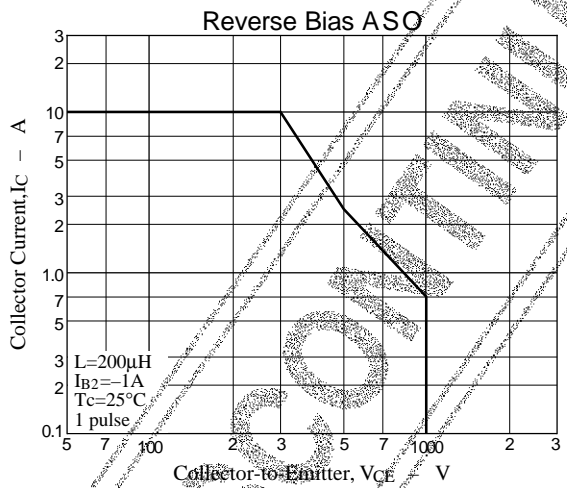
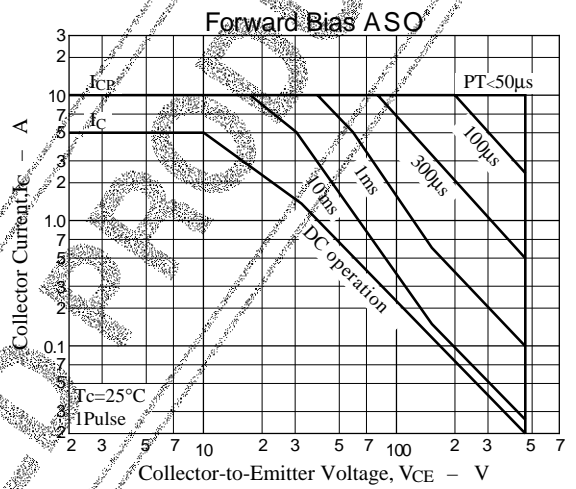
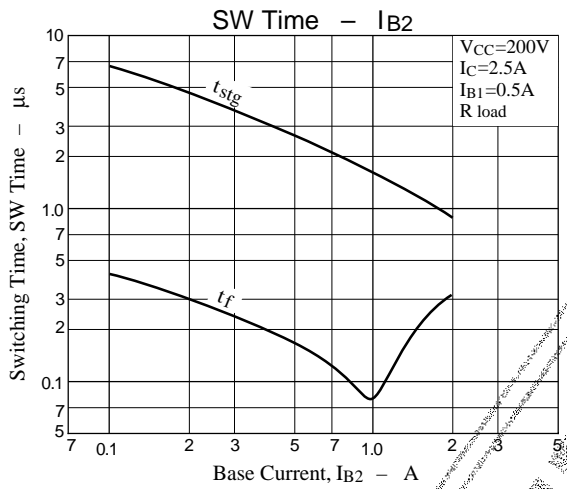
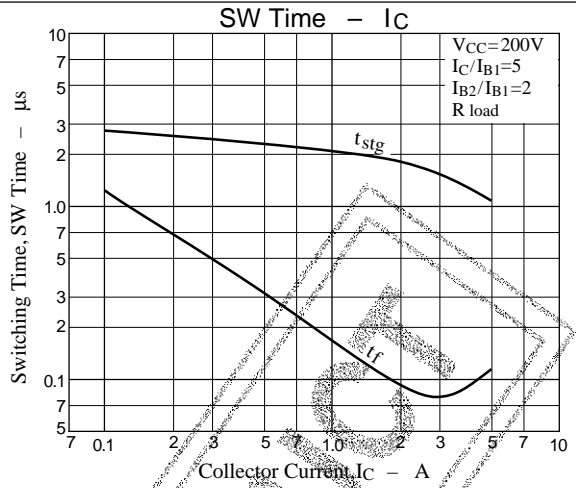
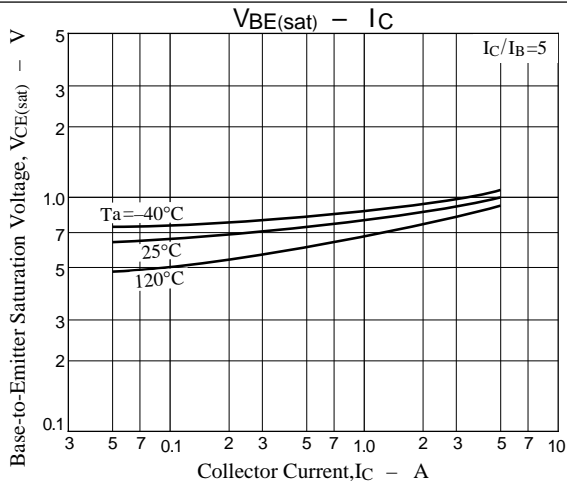
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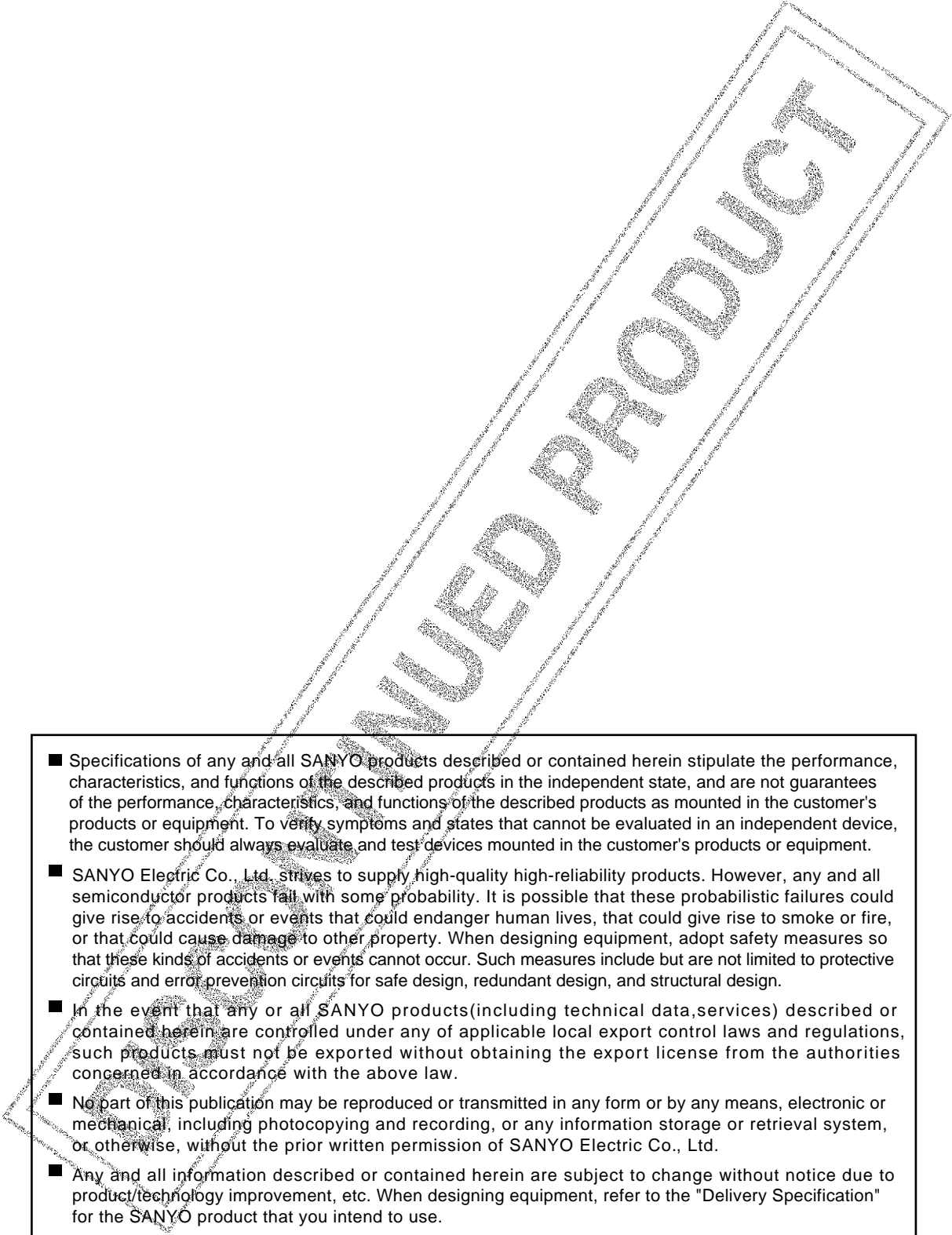
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
DC Current Gain	$h_{FE1}$	$V_{CE}=5V, I_C=0.3A$	30	40	50	
	$h_{FE2}$	$V_{CE}=5V, I_C=2.0A$	10			
Storage Time	$t_{stg}$	$I_C=2.5A, I_{B1}=0.5A, I_{B2}=-1.0A$			2.5	$\mu s$
Fall Time	$t_f$	$I_C=2.5A, I_{B1}=0.5A, I_{B2}=-1.0A$			0.15	$\mu s$

## Switching Time Test Circuit



# 2SC5420



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