



SANYO Semiconductors

DATA SHEET

2SC4460M-SV

NPN Triple Diffused Planar Silicon Transistor

Switching Regulator Applications

Features

- High breakdown voltage, High reliability.
- High-speed switching.
- Wide ASO.
- Adoption of MBIT process.
- Micaless package facilitating mounting.

Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V _{CB0}		1000	V
Collector-to-Emitter Voltage	V _{CEO}		500	V
Emitter-to-Base Voltage	V _{EBO}		7	V
Collector Current	I _C		15	A
Collector Current (Pulse)	I _{CP}	PW≤300μs, duty cycle≤10%	25	A
Base Current	I _B		4	A
Collector Dissipation	P _C		3	W
		T _C =25°C	55	W
Junction Temperature	T _J		150	°C
Storage Temperature	T _{stg}		-55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I _{CB0}	V _{CB} =500V, I _E =0A			10	μA
Emitter Cutoff Current	I _{EBO}	V _{EB} =5V, I _C =0A			10	μA

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SANYO Semiconductor Co., Ltd.

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

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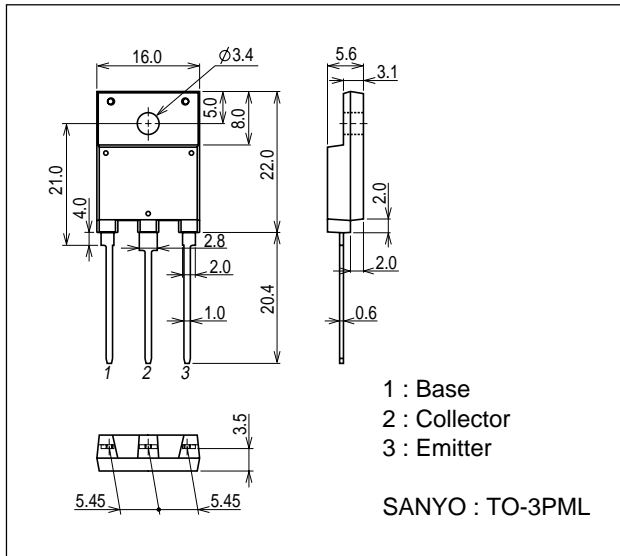
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
DC Current Gain	hFE1	VCE=5V, IC=1.2A	20		40	
	hFE2	VCE=5V, IC=6A	8			
Gain-Bandwidth Product	fT	VCE=10V, IC=1.2A		18		MHz
Output Capacitance	Cob	VCB=10V, f=1MHz		160		pF
Collector-to-Emitter Saturation Voltage	VCE(sat)	IC=6A, IB=1.2A			1	V
Base-to-Emitter Saturation Voltage	VBE(sat)	IC=6A, IB=1.2A			1.5	V
Collector-to-Base Breakdown Voltage	V(BR)CBO	IC=1mA, IE=0A	1000			V
Collector-to-Emitter Breakdown Voltage	V(BR)CEO	IC=5mA, RBE=∞	500			V
Emitter-to-Base Breakdown Voltage	V(BR)EBO	IE=1mA, IC=0A	7			V
Collector-to-Emitter Sustain Voltage	VCEX(sus)	IC=5A, IB1=-IB2=2A, L=500μH, clamped	500			V
Turn-On Time	ton	VCC=200V, 5IB1=-2.5IB2=IC=7A, RL=28.6Ω			0.5	μs
Storage Time	tstg	VCC=200V, 5IB1=-2.5IB2=IC=7A, RL=28.6Ω			3.0	μs
Fall Time	tf	VCC=200V, 5IB1=-2.5IB2=IC=7A, RL=28.6Ω			0.3	μs

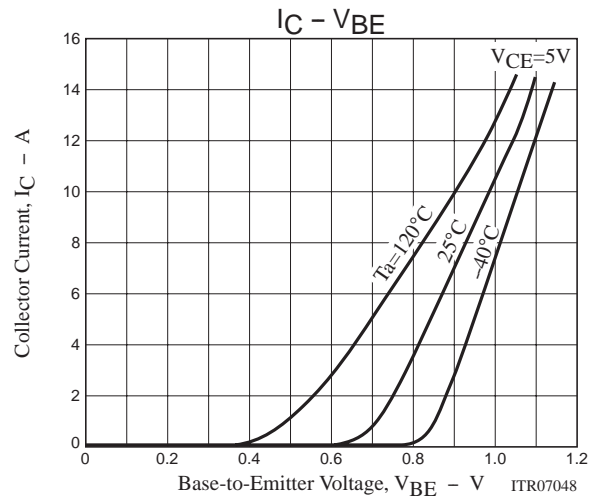
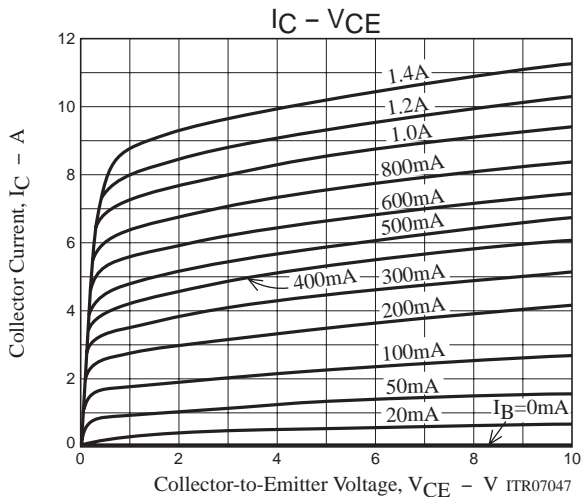
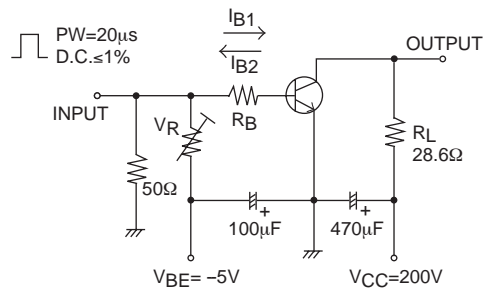
Package Dimensions

unit : mm (typ)

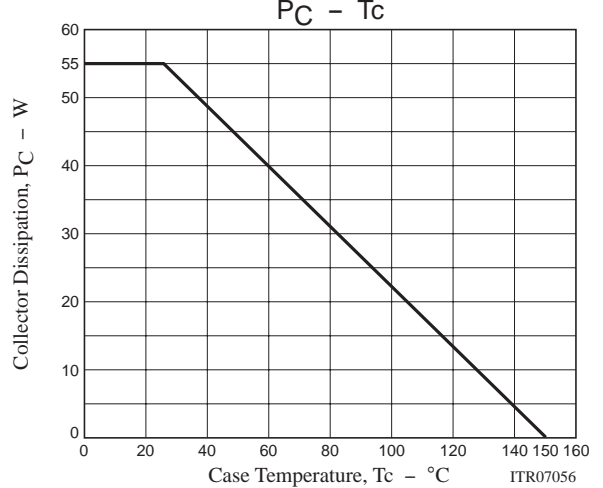
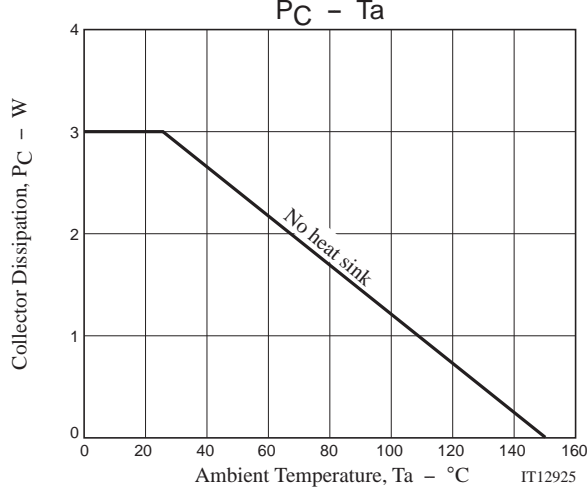
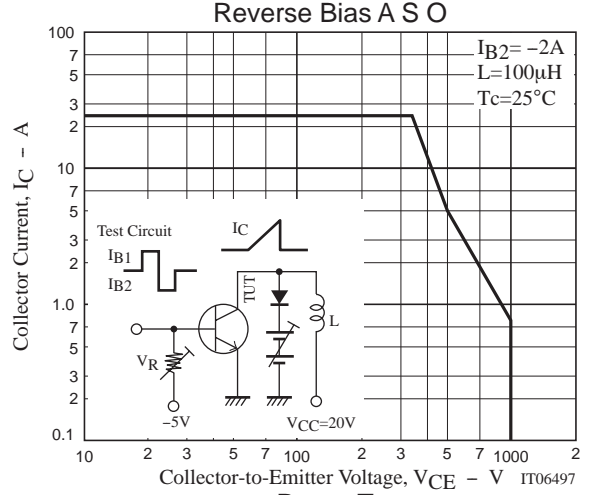
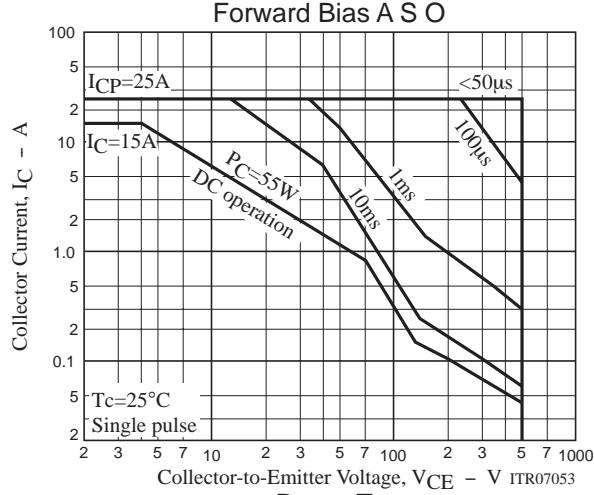
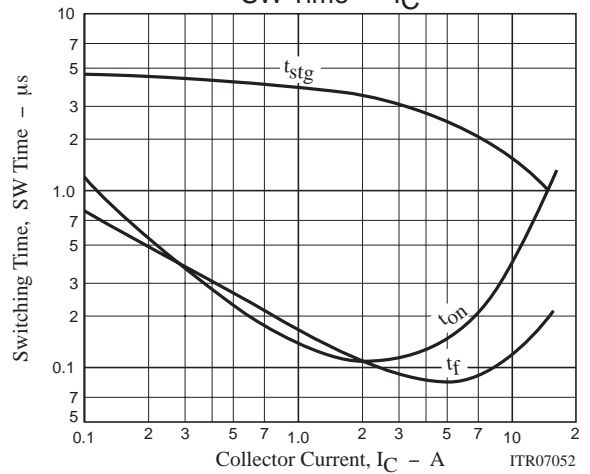
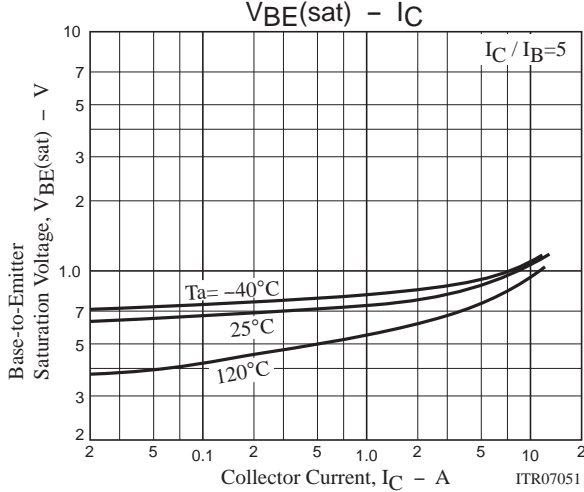
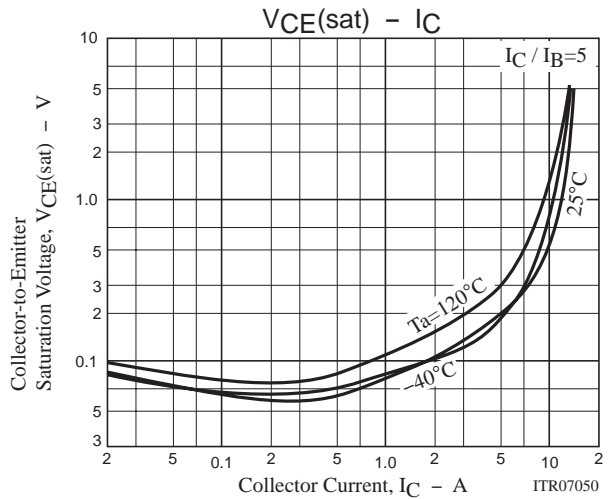
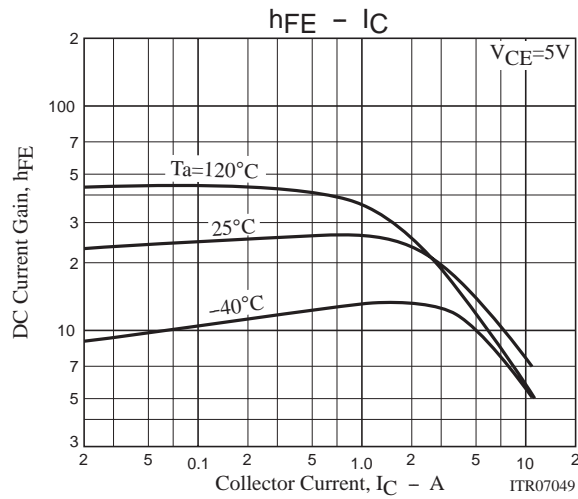
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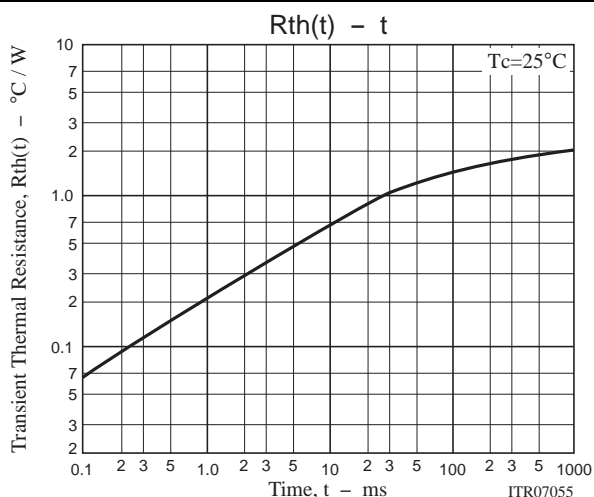
Switching Time Test Circuit



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