

SANYO	No.1544B	2SC3446 NPN Triple Diffused Planar Silicon Transistor FOR SWITCHING REGULATORS
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Features

- High breakdown voltage and high reliability
- Fast switching speed (t_f : 0.1 μ s typ.)
- Wide ASO
- Adoption of MBIT process

Absolute Maximum Ratings at Ta=25°C

			unit
Collector-to-Base Voltage	VCBO		800 V
Collector-to-Emitter Voltage	VCEO		500 V
Emitter-to-Base Voltage	VEBO		7 V
Collector Current	IC		3 A
Peak Collector Current	icp	PW \leq 300 μ s, Duty Cycle \leq 10%	6 A
Base Current	IB		1 A
Collector Dissipation	PC	TC=25°C	40 W
Junction Temperature	Tj		150 °C
Storage Temperature	Tstg		-55 to +150 °C

Electrical Characteristics at Ta=25°C

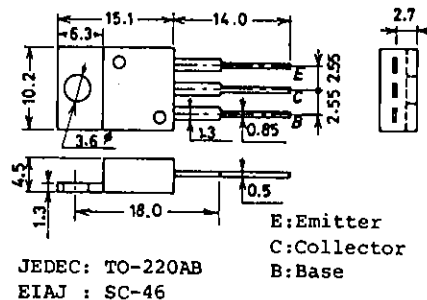
			min	typ	max	unit
Collector Cutoff Current	ICBO	VCB=500V, IE=0			10	μ A
Emitter Cutoff Current	IEBO	VEB=5V, IC=0			10	μ A
DC Current Gain	hFE(1)	VCE=5V, IC=0.3A	15*			
	hFE(2)	VCE=5V, IC=1.5A	8			
Gain Bandwidth Product	fT	VCE=10V, IC=0.3A		18		MHz
Output Capacitance	Cob	VCB=10V, f=1MHz		50		pF
C-E Saturation Voltage	VCE(sat)	IC=1.5A, IB=0.3A			1.0	V
B-E Saturation Voltage	VBE(sat)	IC=1.5A, IB=0.3A			1.5	V
C-B Breakdown Voltage	V(BR)CBO	IC=1mA, IE=0	800			V
C-E Breakdown Voltage	V(BR)CEO	IC=5mA, RBE= ∞	500			V
E-B Breakdown Voltage	V(BR)EBO	IE=1mA, IC=0	7			V

*: The hFE(1) of the 2SC3446 is classified as follows. When specifying the hFE(1) rank, specify two ranks or more in principle.

15	L	30	20	M	40	30	N	50
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Package Dimensions 2010A
(unit:mm)

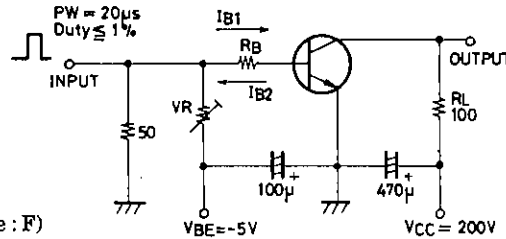


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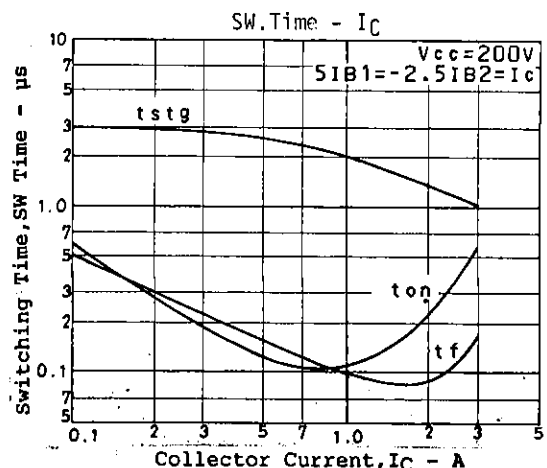
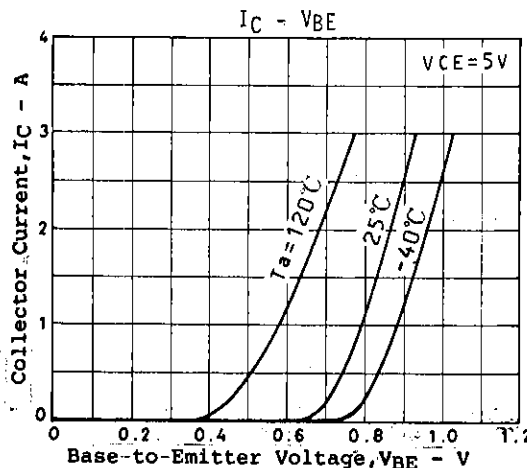
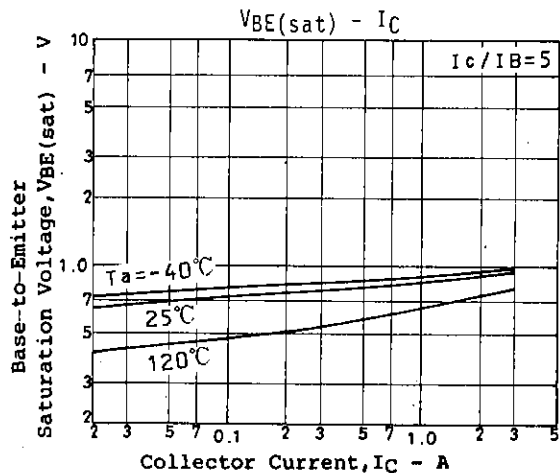
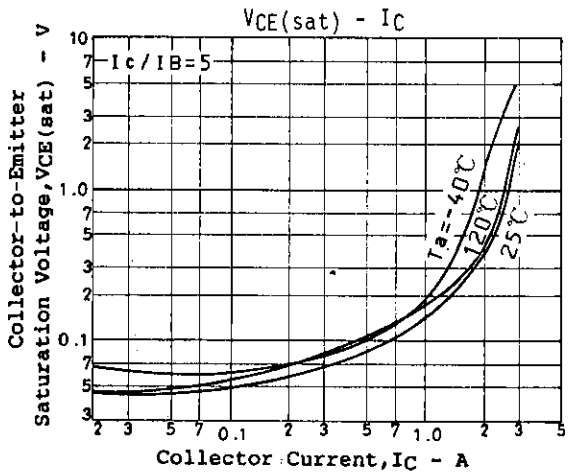
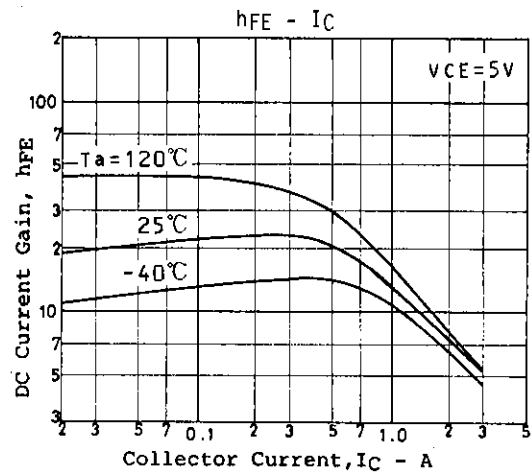
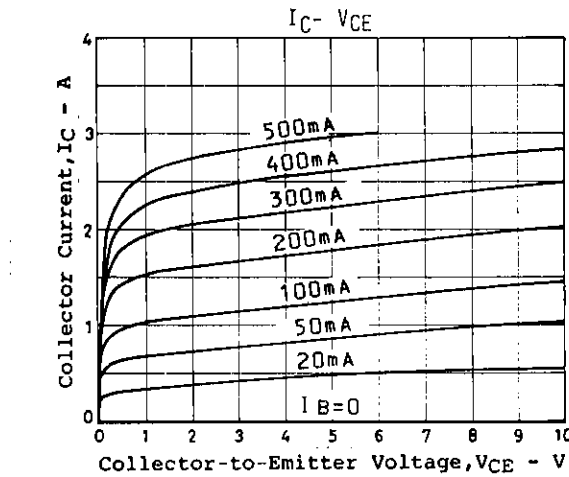
		min	typ	max	unit
C-E Sustain Voltage	$V_{CE(sus)}$ $I_C=1.5A$	500			V
	$I_{B1}=-I_{B2}=0.6A,$ $L=2mH, \text{clamped}$				
Turn-on Time	t_{on}			0.5	μs
Storage Time	t_{stg}			3.0	μs
Fall Time	t_f			0.3	μs

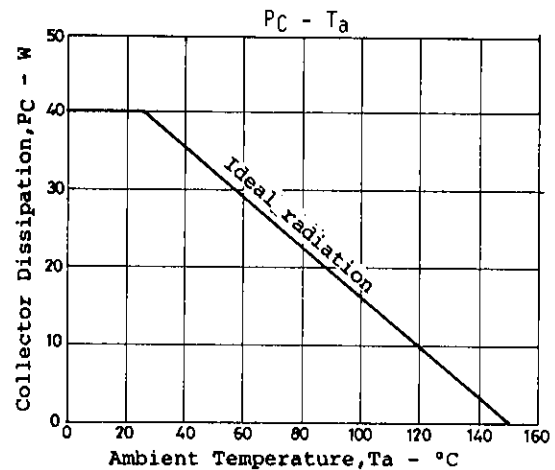
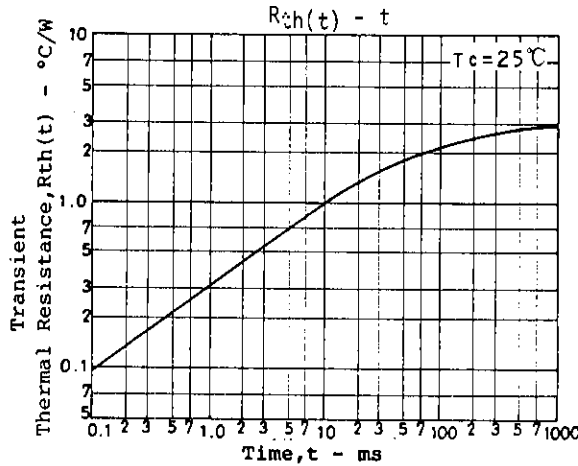
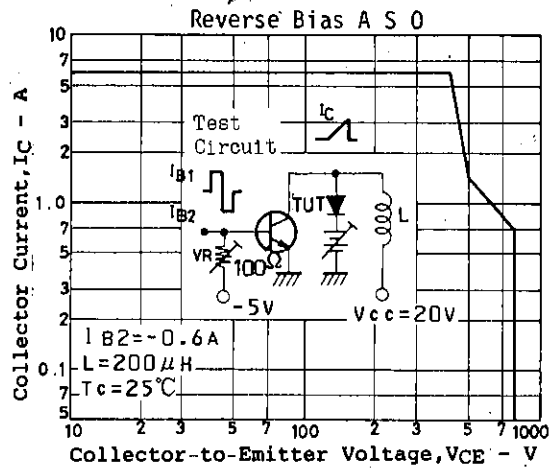
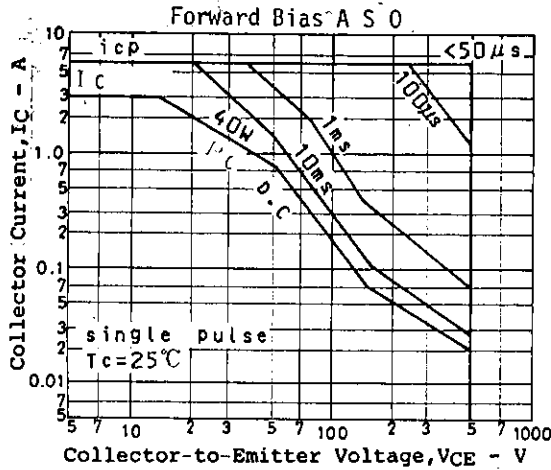
$V_{CC}=200V,$
 $5I_{B1}=-2.5I_{B2}=I_C=2A,$
 $R_L=100\Omega$

Switching Time Test Circuit



Unit (Resistance : Ω , Capacitance : F)





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