

SANYO

No.1544B

2SC3446

NPN Triple Diffused Planar Silicon Transistor
FOR SWITCHING REGULATORS

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 $T_a=25^\circ\text{C}$

			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≤300μs, Duty Cycle≤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

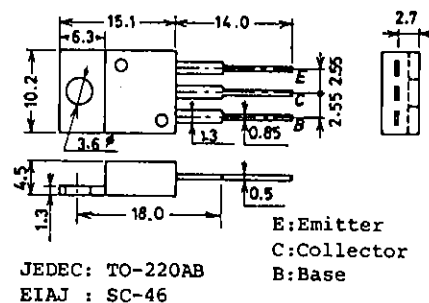
Electrical Characteristics at $T_a=25^\circ\text{C}$

			min	typ	max	unit
Collector Cutoff Current	ICBO	VCB=500V, IE=0			10	μA
Emitter Cutoff Current	IEBO	VEB=5V, IC=0			10	μA
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)

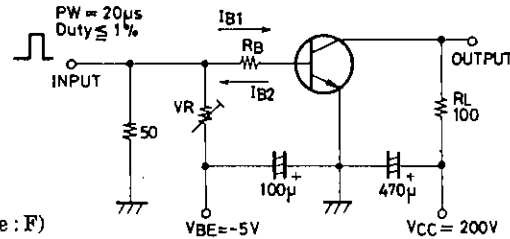
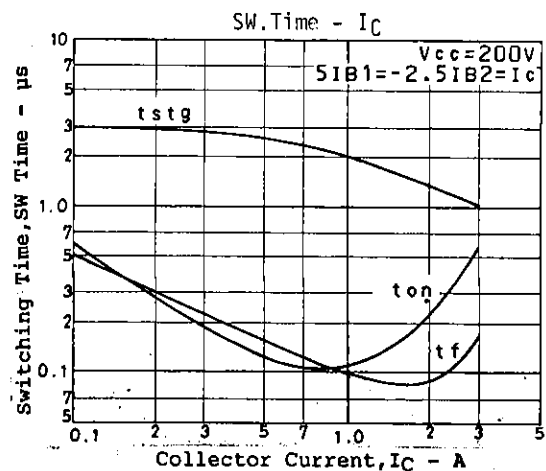
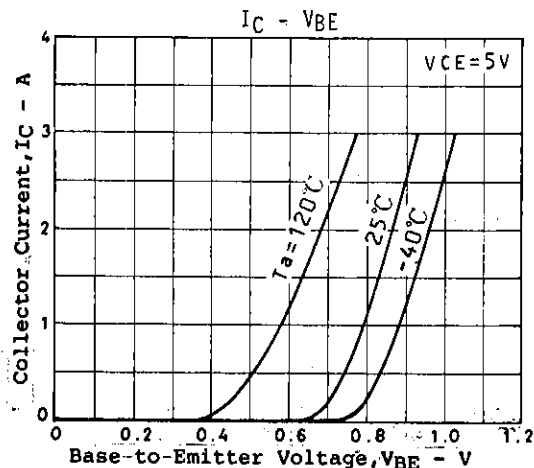
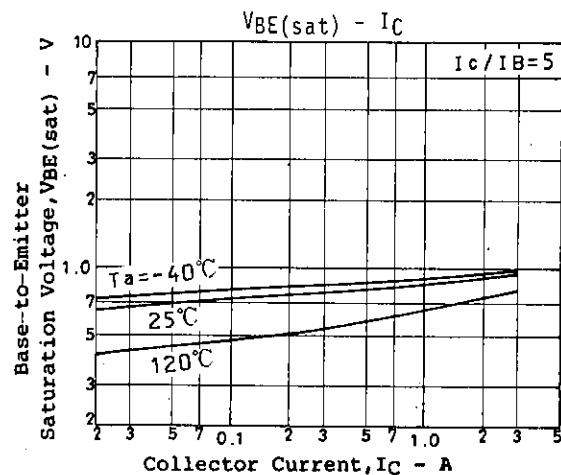
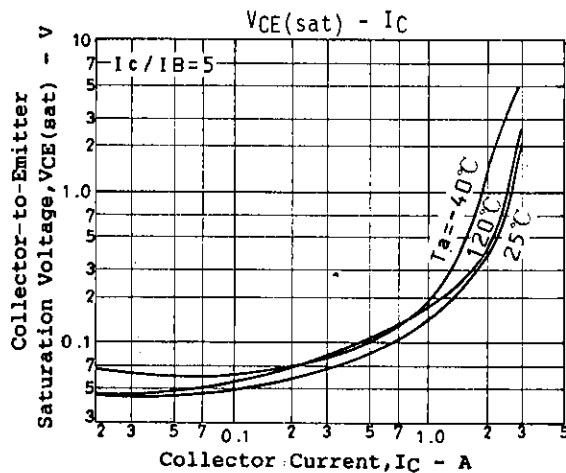
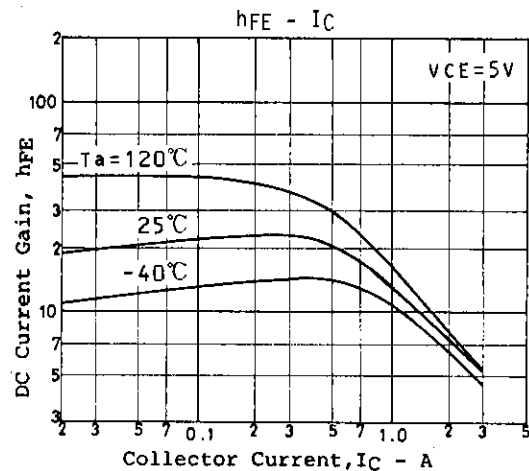
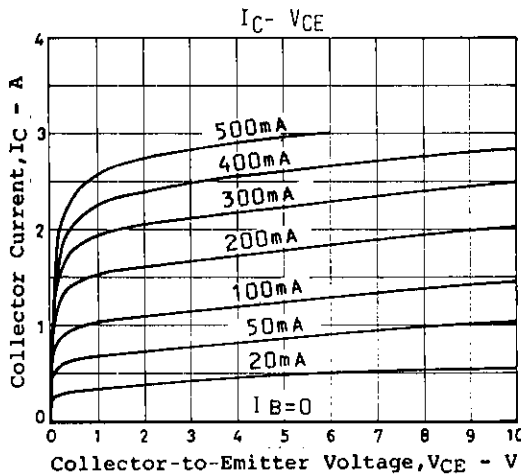
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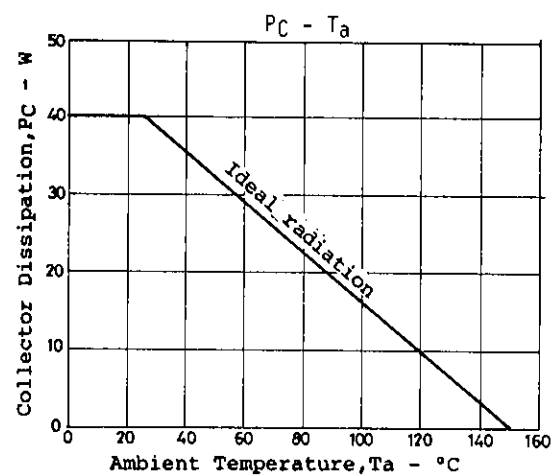
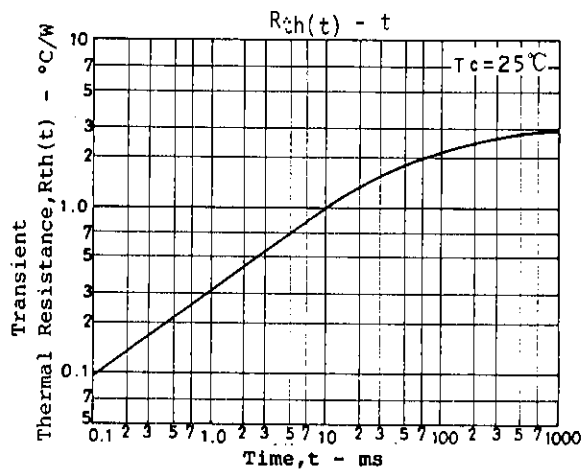
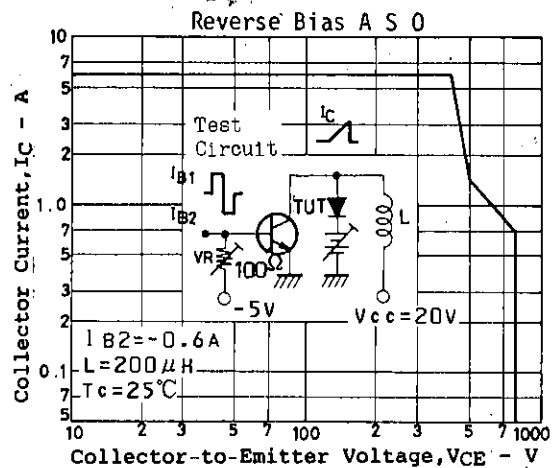
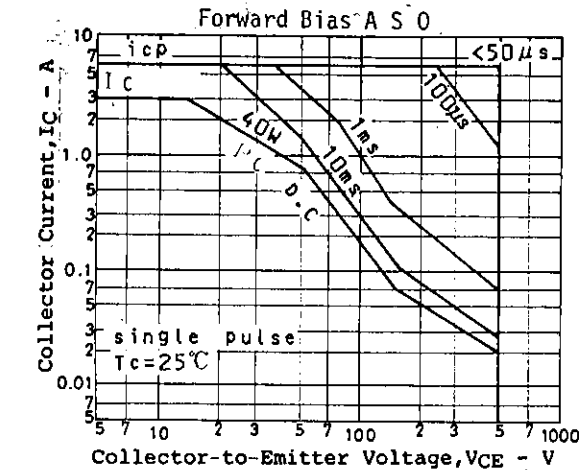
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			min	typ	max	unit
C-E Sustain Voltage	$V_{CE(sus)}$	$I_C=1.5A$ $I_{B1}=-I_{B2}=0.6A$ $L=2mH$, clamped	500			V
Turn-on Time	t_{on}	$V_{CC}=200V$, $5I_{B1}=-2.5I_{B2}=I_C=2A$, $R_L=100\Omega$			0.5	μs
Storage Time	t_{stg}				3.0	μs
Fall Time	t_f				0.3	μs

Switching Time Test Circuit

Unit (Resistance : Ω , Capacitance : F)



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