

SANYO

No. 1594B

2SC3460

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 Ta=25°C

			unit
Collector-to-Base Voltage	V _{CB0}	1100	V
Collector-to-Emitter Voltage	V _{CE0}	800	V
Emitter-to-Base Voltage	V _{EBO}	7	V
Collector Current	I _C	6	A
Peak Collector Current	i _{cp}	20	A
Base Current	I _B	3	A
Collector Dissipation	P _C	100	W
Junction Temperature	T _J	150	°C
Storage Temperature	T _{stg}	-55 to +150	°C

$T_C=25^\circ\text{C}$
PW \leq 300 μ s, Duty Cycle \leq 10%

Electrical Characteristics at Ta=25°C

		min	typ	max	unit
Collector Cutoff Current	I _{CB0}			10	μ A
Emitter Cutoff Current	I _{EBO}			10	μ A
DC Current Gain	h _{FE(1)}	10*		40*	
	h _{FE(2)}	8			
Gain-Bandwidth Product	f _T		15		MHz
Output Capacitance	c _{ob}		120		pF
C-E Saturation Voltage	V _{CE(sat)}			2.0	V
B-E Saturation Voltage	V _{BE(sat)}			1.5	V
C-B Breakdown Voltage	V(BR)CBO	1100			V
C-E Breakdown Voltage	V(BR)CEO	800			V
E-B Breakdown Voltage	V(BR)EBO	7			V
C-E Sustain Voltage	V _{CEX(sus)}	800			V
Turn-On Time	t _{on}		0.5		μ s
Storage Time	t _{stg}		3.0		μ s
Fall Time	t _f		0.3		μ s

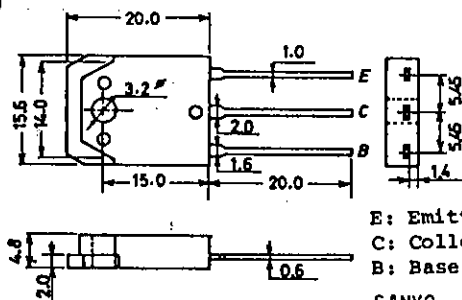
$V_{CB}=800\text{V}, I_E=0$
 $V_{EB}=5\text{V}, I_C=0$
 $V_{CE}=5\text{V}, I_C=0.4\text{A}$
 $V_{CE}=5\text{V}, I_C=2\text{A}$
 $V_{CE}=10\text{V}, I_C=0.4\text{A}$
 $V_{CB}=10\text{V}, f=1\text{MHz}$
 $I_C=3\text{A}, I_B=0.6\text{A}$
 $I_C=3\text{A}, I_B=0.6\text{A}$
 $I_C=1\text{mA}, I_E=0$
 $I_C=5\text{mA}, R_{BE}=\infty$
 $I_E=1\text{mA}, I_C=0$
 $I_C=3\text{A}$
 $I_{B1}=-I_{B2}=0.6\text{A}$
 $L=1\text{mH}, \text{clamped}$
 $V_{CC}=400\text{V}$
 $5I_{B2}=-2.5I_{B2}=I_C=4\text{A}$
 $R_L=100\text{ohms}$

*: The h_{FE(1)} of the 2SC3460 is classified as follows. When specifying the h_{FE(1)} rank, specify two ranks or more in principle.

10	K	20	15	L	30	20	M	40
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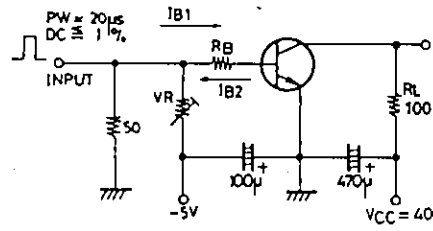
Package Dimensions 2022

(unit:mm)

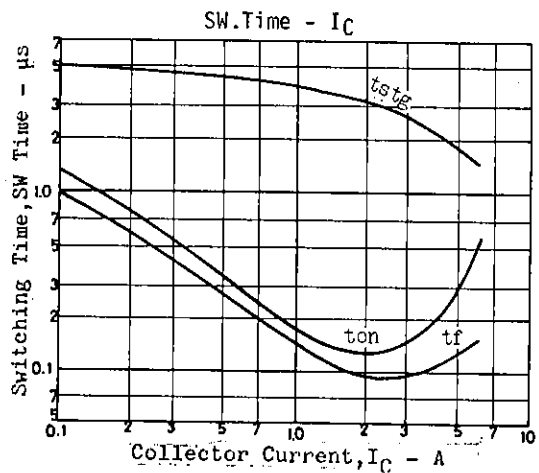
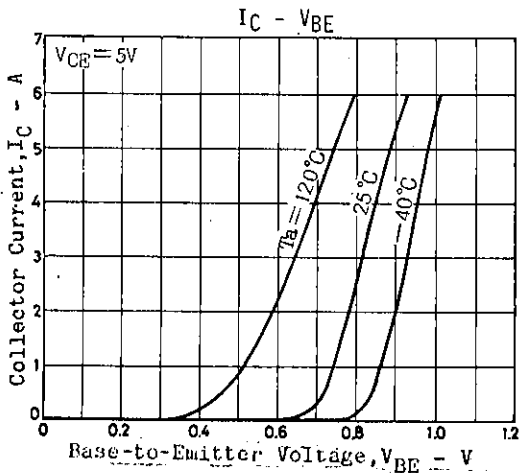
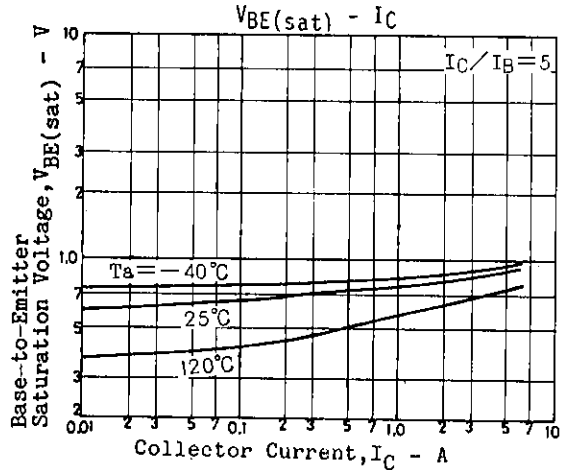
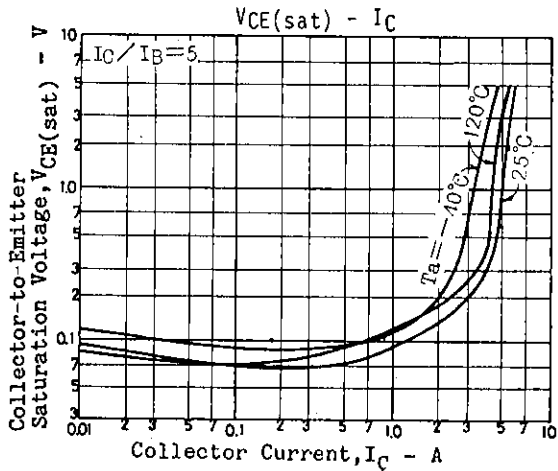
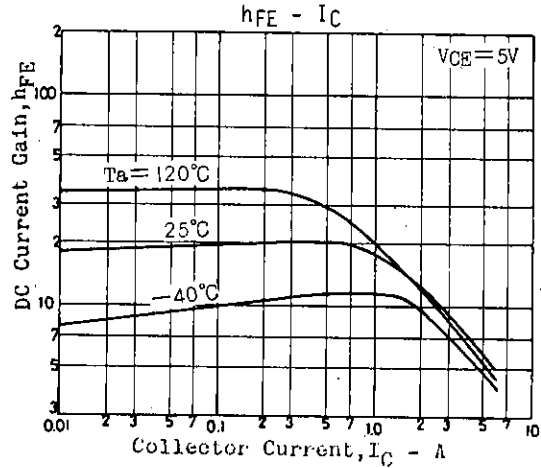
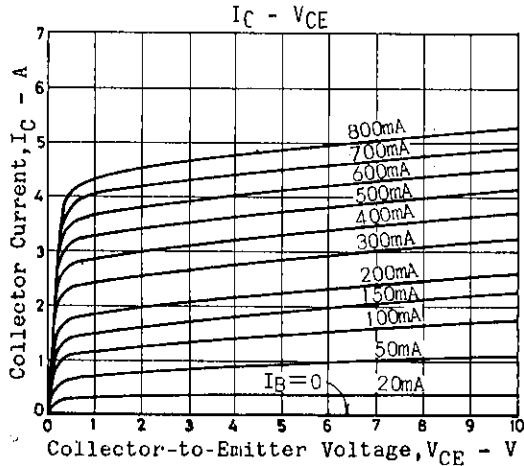


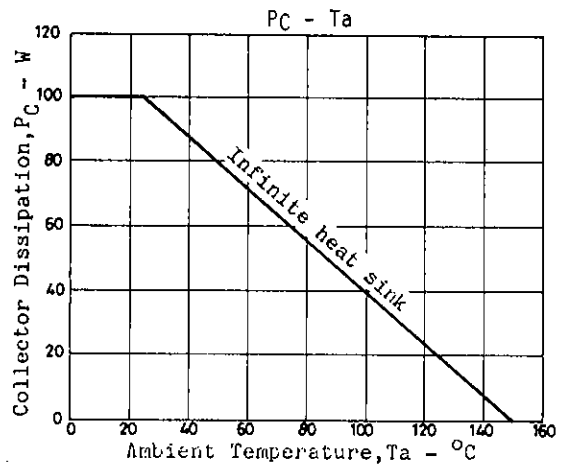
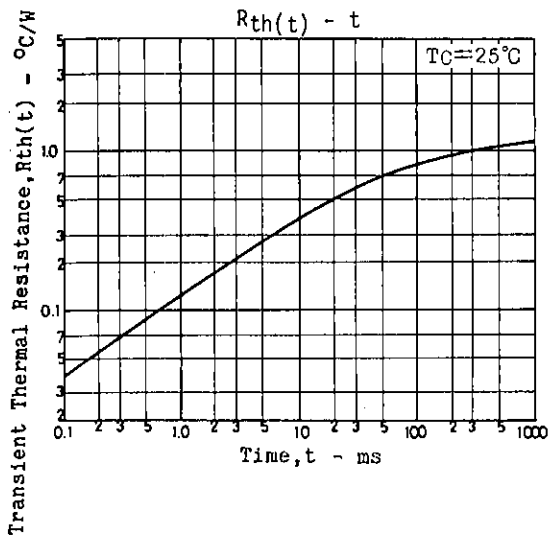
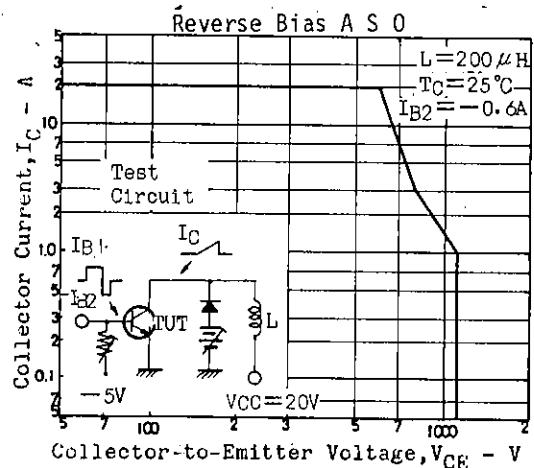
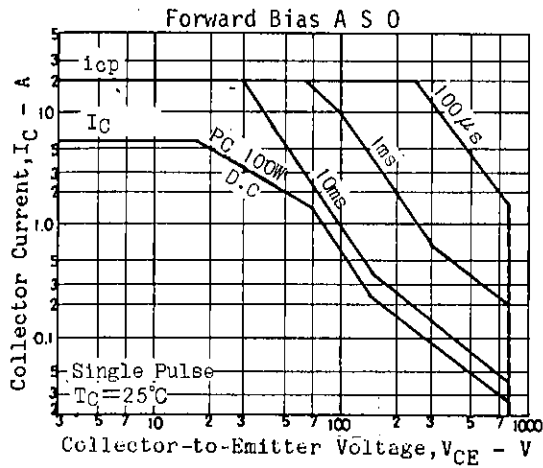
E: Emitter
C: Collector
B: Base
SANYO: T03PB

Switching Time Test Circuit



VCC = 400V Unit (Resistance : Ω, Capacitance : F)





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