

SANYO	No. 1597C	2SC3552
NPN Triple Diffused Planar Type 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

Collector-to-Base Voltage	V_{CBO}	1100	V
Collector-to-Emitter Voltage	V_{CEO}	800	V
Emitter-to-Base Voltage	V_{EBO}	7	V
Collector Current	I_C	12	A
Peak Collector Current	i_{cp}	30	A
Base Current	I_B	6	A
Collector Dissipation	P_C	150	W
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55 to +150	°C

$T_C=25^\circ C$

$PW \leq 300\mu s, Duty\ Cycle \leq 10\%$

Electrical Characteristics at Ta=25°C

		min	typ	max	unit
Collector Cutoff Current	I_{CBO}			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}		215		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

$V_{CB}=800V, I_E=0$

$V_{EB}=5V, I_C=0$

$V_{CE}=5V, I_C=0.8A$

$V_{CE}=5V, I_C=4A$

$V_{CE}=10V, I_C=0.8A$

$V_{CB}=10V, f=1MHz$

$I_C=6A, I_B=1.2A$

$I_C=6A, I_B=1.2A$

$I_C=1mA, I_E=0$

$I_C=5mA, R_{BE}=\infty$

$I_E=1mA, I_C=0$

$I_C=6A$

$I_{B1}=-I_{B2}=1.2A,$

$L=500\mu H, Clamped$

$V_{CC}=400V,$

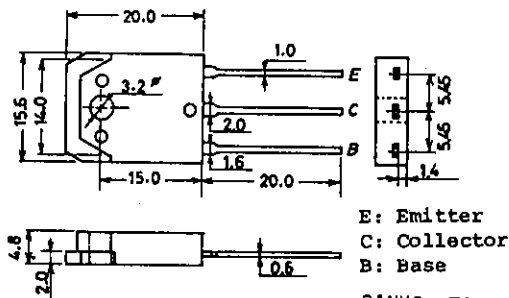
$5I_{B1}=-2.5I_{B2}=I_C=8A,$

$R_L=500ohms$

*: The $h_{FE}(1)$ of the 2SC3552 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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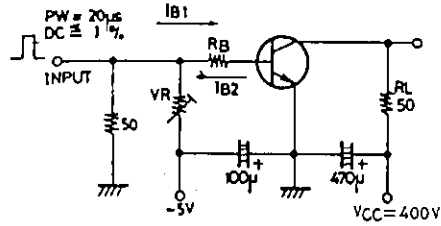
Package Dimensions 2022
(unit:mm)



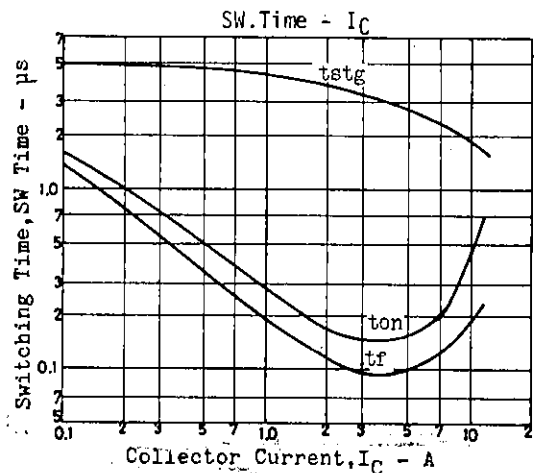
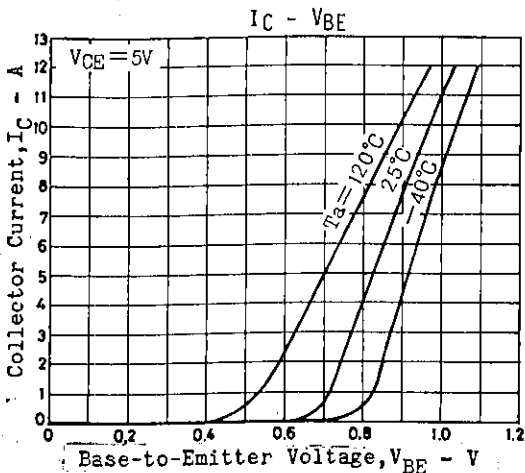
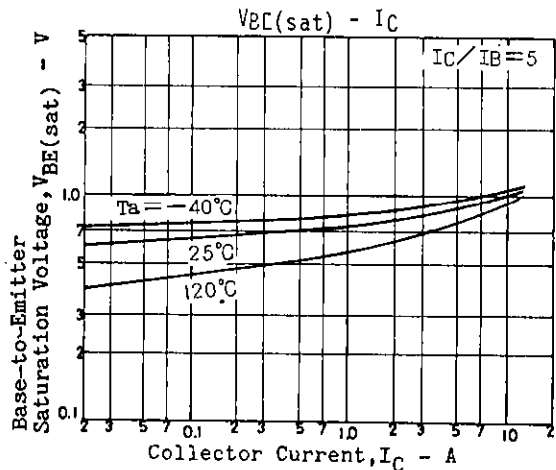
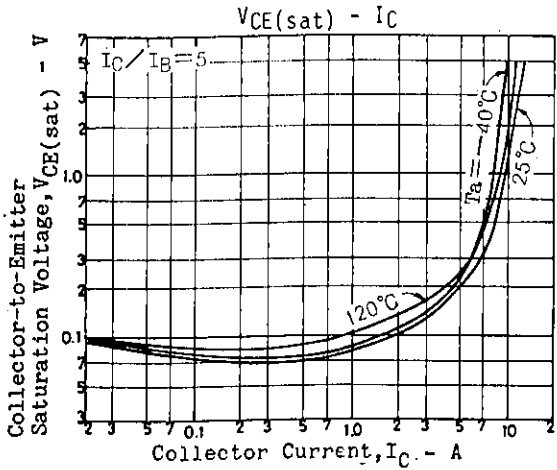
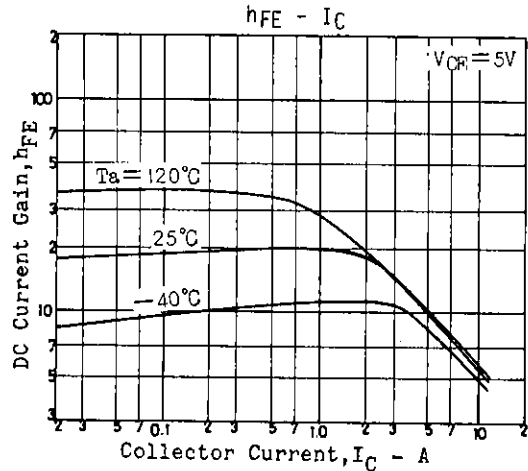
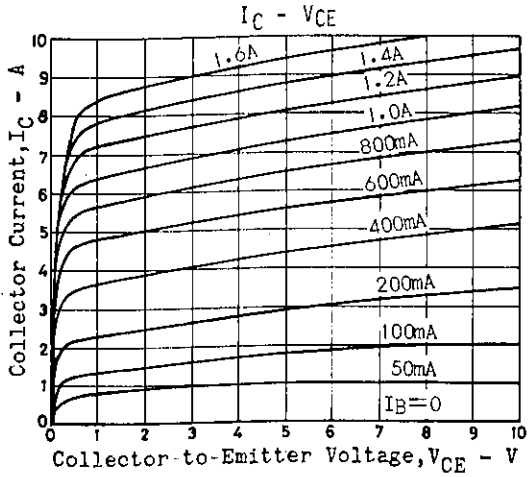
E: Emitter
C: Collector
B: Base

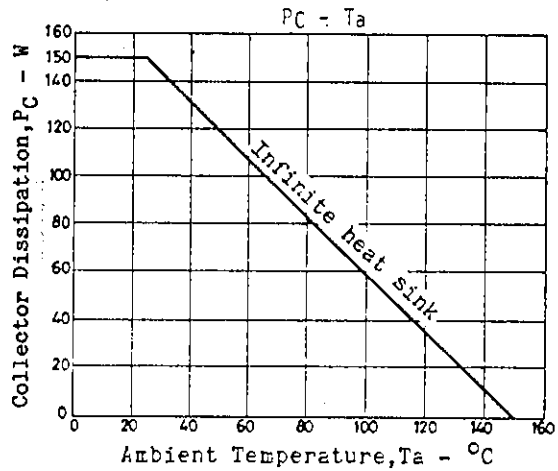
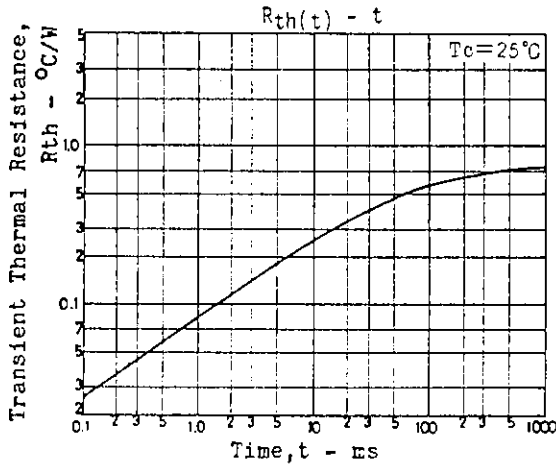
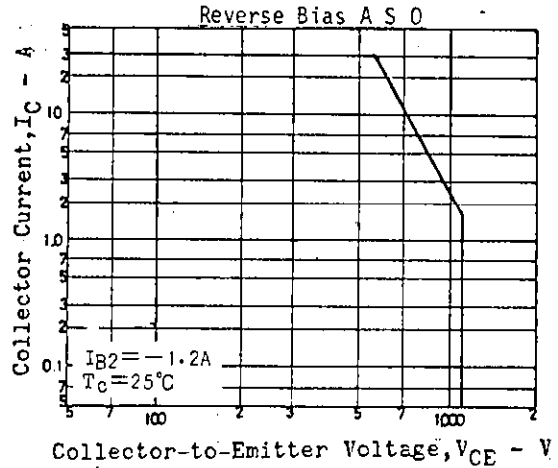
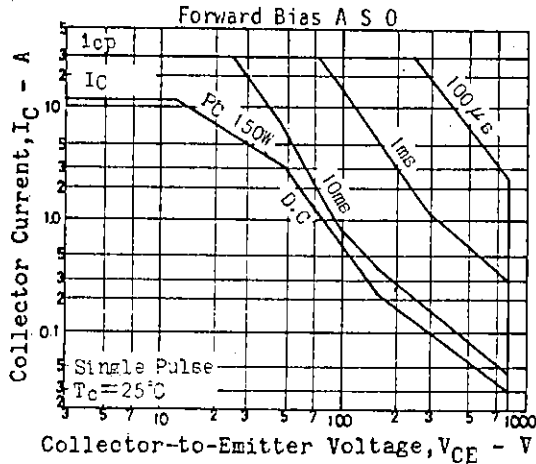
SANYO: TQ3PB

Switching Time Test Circuit



Unit (Resistance : Ω, Capacitance : F)





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