

<b>SANYO</b>	No. 1597C	<b>2SC3552</b>
NPN Triple Diffused Planar Type Silicon Transistor		
FOR SWITCHING REGULATORS		

**Features**

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

**Absolute Maximum Ratings at Ta=25°C**

			unit
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

$PW \leq 300\mu s, Duty\ Cycle \leq 10\%$   
 $T_C = 25^\circ C$

**Electrical Characteristics at Ta=25°C**

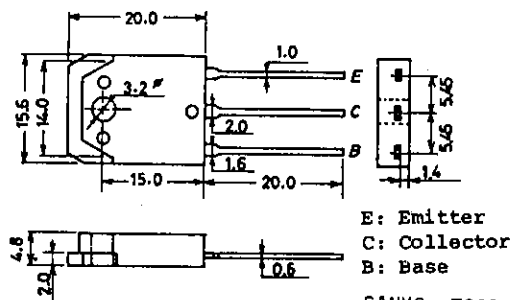
		min	typ	max	unit
Collector Cutoff Current	$I_{CBO}$			10	$\mu$ A
Emitter Cutoff Current	$I_{EBO}$			10	$\mu$ A
DC Current Gain	$h_{FE}(1)$	10*		40*	
	$h_{FE}(2)$	8			
Gain-Bandwidth Product	$f_T$		15		MHz
Output Capacitance	$c_{ob}$		215		pF
C-E Saturation Voltage	$V_{CE(sat)}$			2.0	V
B-E Saturation 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		$\mu$ s
Storage Time	$t_{stg}$		3.0		$\mu$ s
Fall Time	$t_f$		0.3		$\mu$ 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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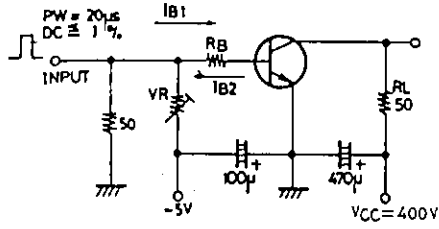
**Package Dimensions 2022**  
(unit:mm)



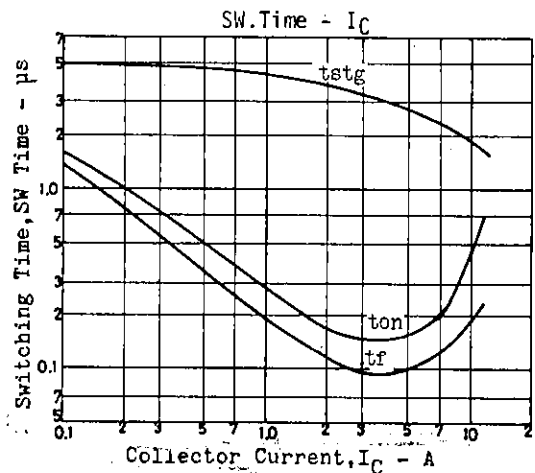
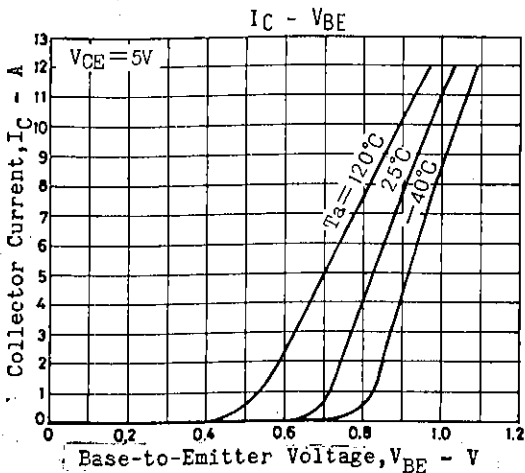
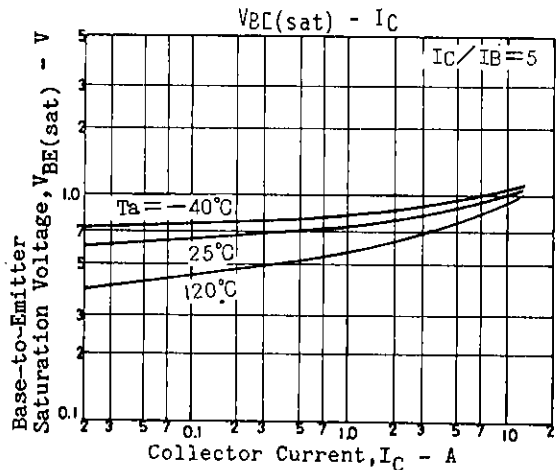
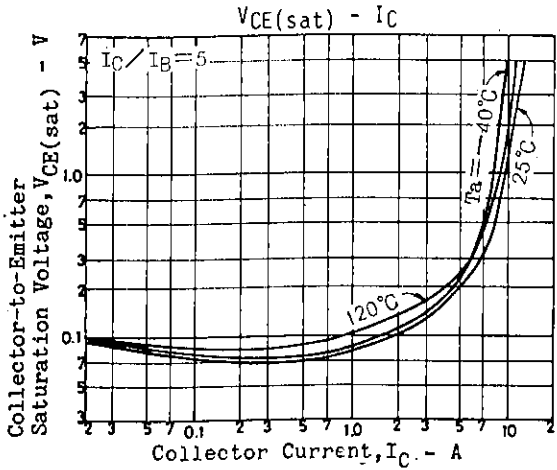
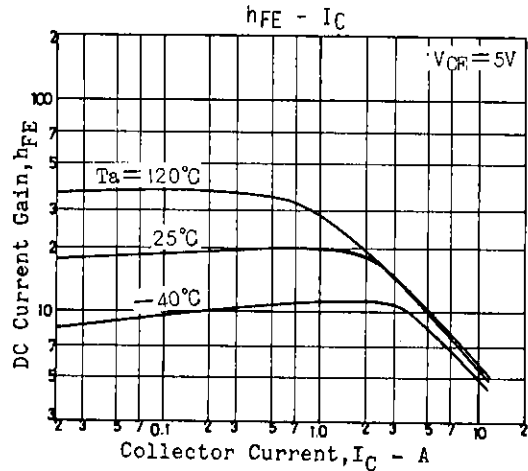
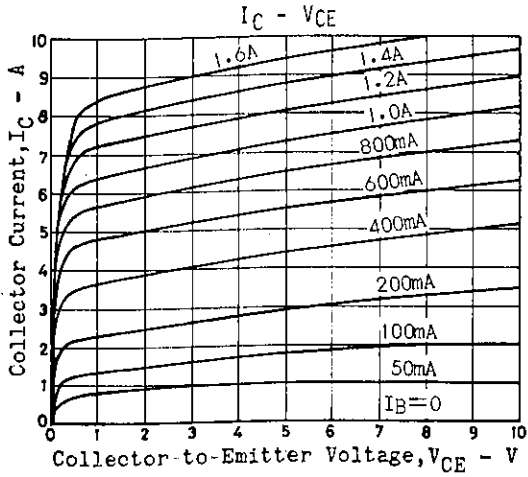
E: Emitter  
C: Collector  
B: Base

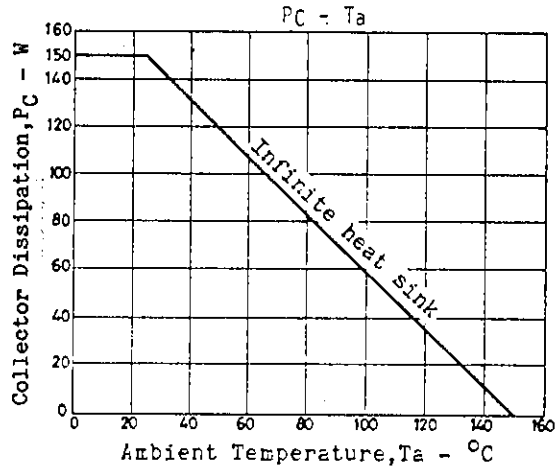
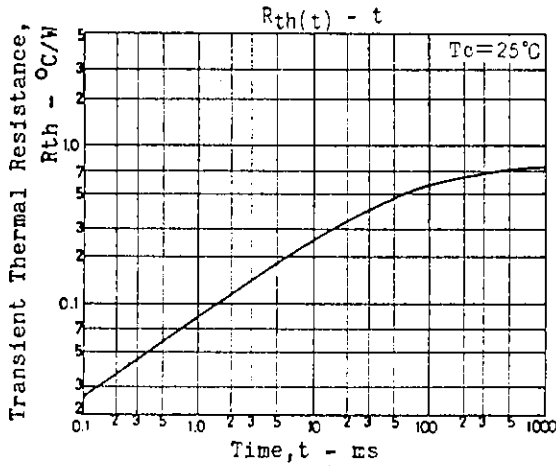
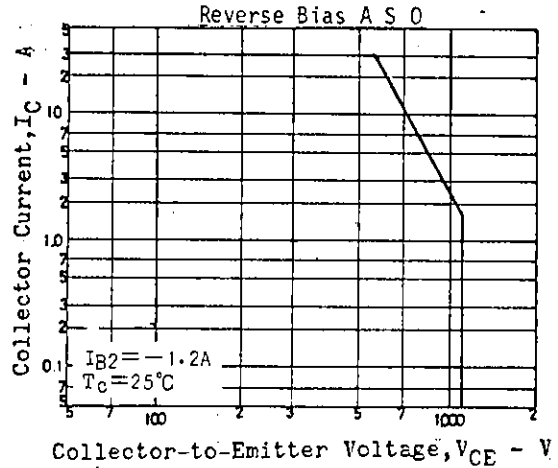
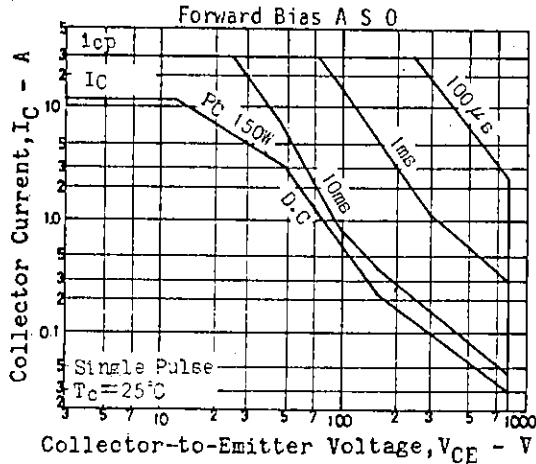
SANYO: TQ3PB

Switching Time Test Circuit



Unit (Resistance : Ω, Capacitance : F)





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