

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

			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

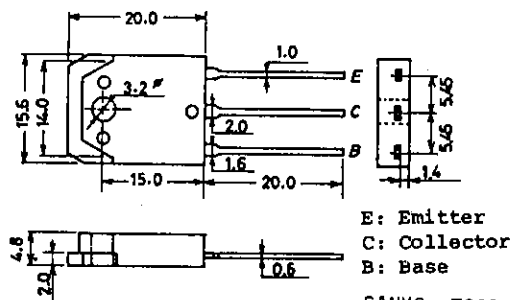
		min	typ	max	unit
Collector Cutoff Current	I_{CBO}			10	μ A
Emitter Cutoff Current	I_{EBO}			10	μ A
DC Current Gain	$h_{FE}(1)$	10*		40*	
	$h_{FE}(2)$	8			
Gain-Bandwidth Product	f_T		15		MHz
Output Capacitance	c_{ob}		215		pF
C-E Saturation Voltage	$V_{CE(sat)}$			2.0	V
B-E Saturation Voltage	$V_{BE(sat)}$			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.

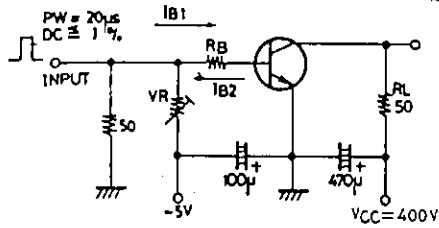
10. K	20	15. L	30	20. M	40
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Package Dimensions 2022
(unit:mm)

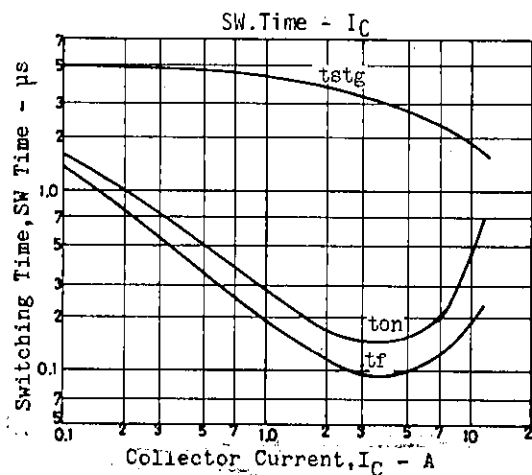
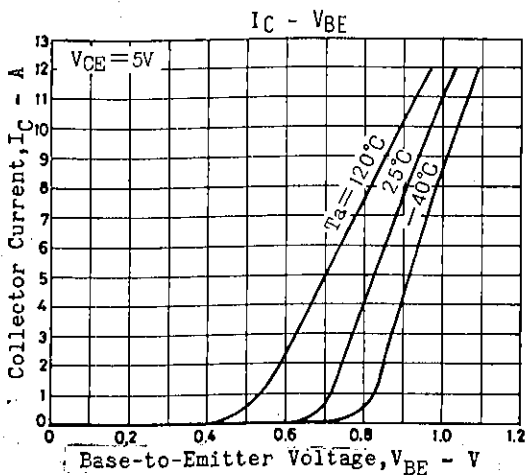
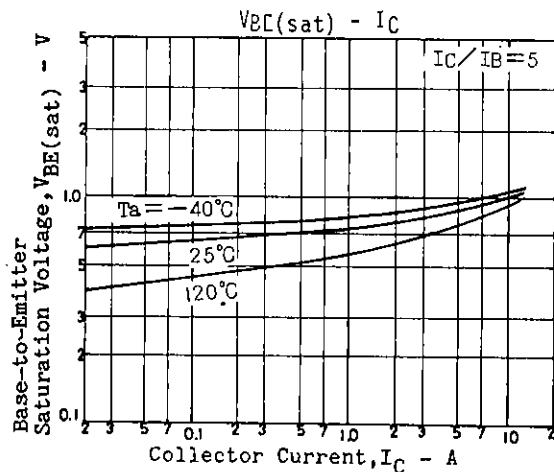
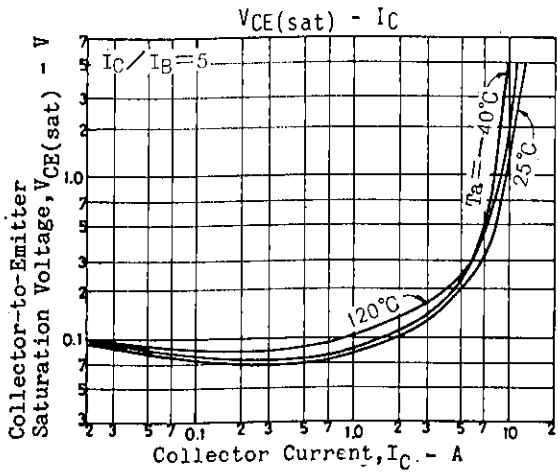
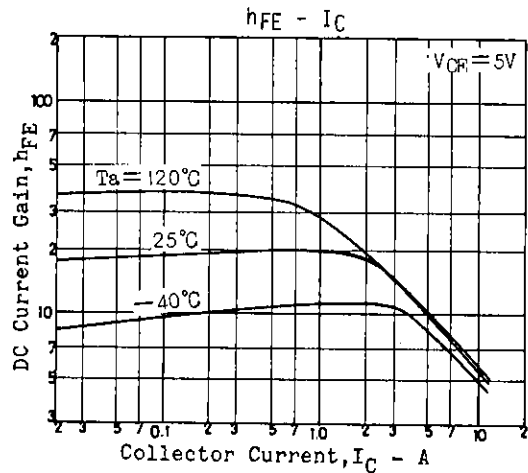
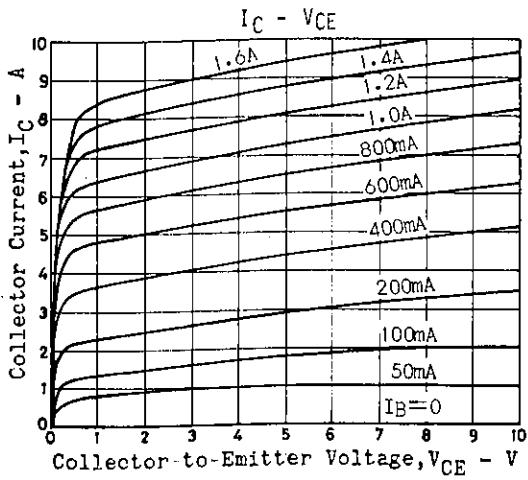


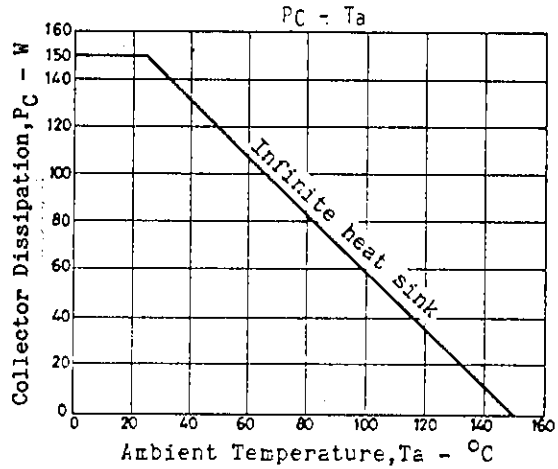
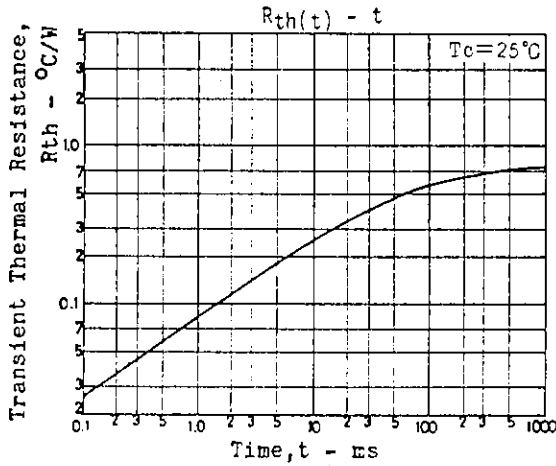
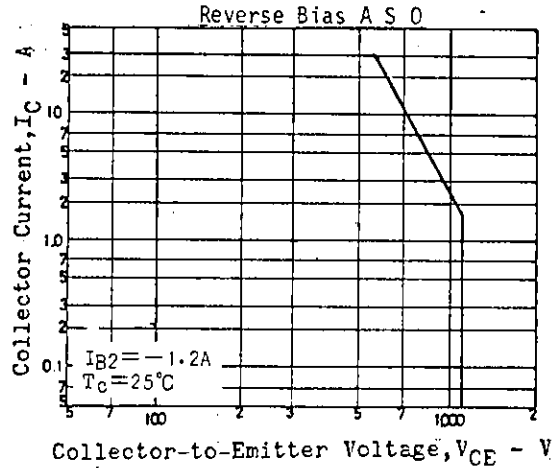
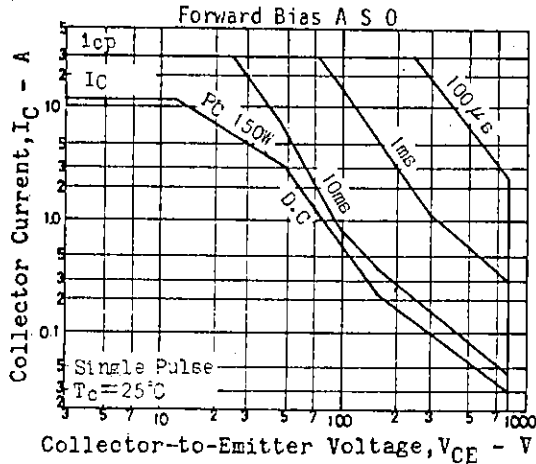
E: Emitter
C: Collector
B: Base
SANYO: TQ3PB

Switching Time Test Circuit



Unit (Resistance : Ω, Capacitance : F)





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