

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

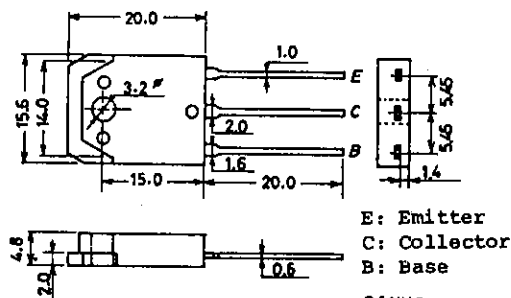
Absolute Maximum Ratings at T _a =25°C			unit
Collector-to-Base Voltage	V _{CB0}	1100	V
Collector-to-Emitter Voltage	V _{CE0}	800	V
Emitter-to-Base Voltage	V _{EB0}	7	V
Collector Current	I _C	12	A
Peak Collector Current	i _{cp}	PW≤300μs,Duty Cycle≤10% 30 A	
Base Current	I _B	6	A
Collector Dissipation	P _C	T _C =25°C 150 W	
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55 to +150 °C	

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

			min	typ	max	unit
Collector Cutoff Current	I_{CB0}	$V_{CB}=800\text{V}, I_E=0$			10	μA
Emitter Cutoff Current	I_{EB0}	$V_{EB}=5\text{V}, I_C=0$			10	μA
DC Current Gain	$h_{FE}(1)$	$V_{CE}=5\text{V}, I_C=0.8\text{A}$	10*		40*	
	$h_{FE}(2)$	$V_{CE}=5\text{V}, I_C=4\text{A}$	8			
Gain-Bandwidth Product	f_T	$V_{CE}=10\text{V}, I_C=0.8\text{A}$		15		MHz
Output Capacitance	c_{ob}	$V_{CB}=10\text{V}, f=1\text{MHz}$		215		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=6\text{A}, I_B=1.2\text{A}$			2.0	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C=6\text{A}, I_B=1.2\text{A}$			1.5	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C=1\text{mA}, I_E=0$	1100			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C=5\text{mA}, R_{BE}=\infty$	800			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E=1\text{mA}, I_C=0$	7			V
C-E Sustain Voltage	$V_{CEX(sus)}$	$I_C=6\text{A}$	800			V
		$I_{B1}=-I_{B2}=1.2\text{A},$ $L=500\mu\text{H}, \text{Clamped}$				
Turn-ON Time	t_{on}	$\left[\begin{array}{l} V_{CC}=400\text{V}, \\ 5I_{B1}=-2.5I_{B2}=I_C=8\text{A}, \\ R_L=500\Omega \end{array} \right]$			0.5	μs
Storage Time	t_{stg}				3.0	μs
Fall Time	t_f				0.3	μs

*: 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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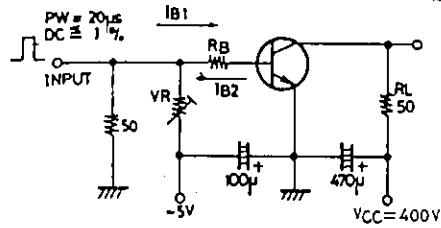
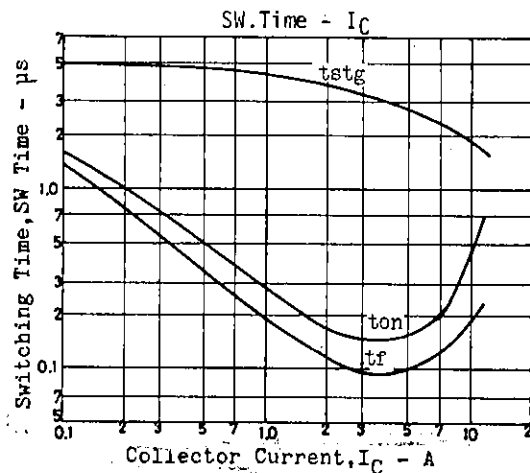
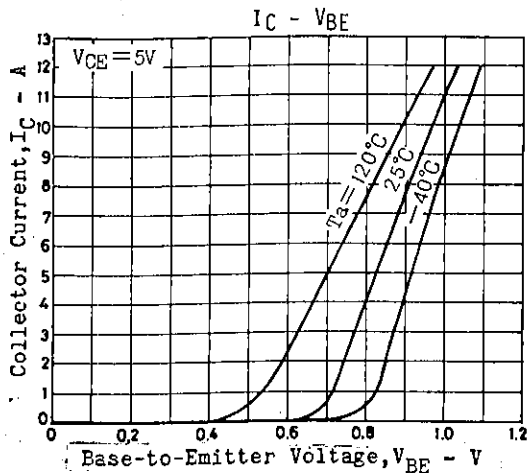
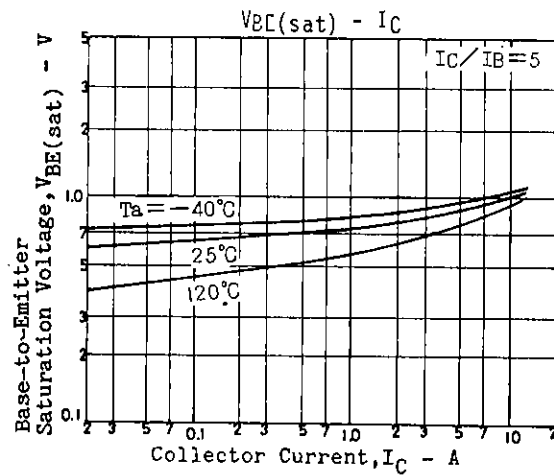
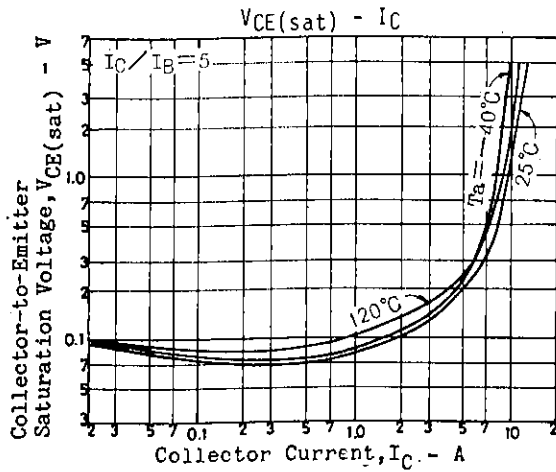
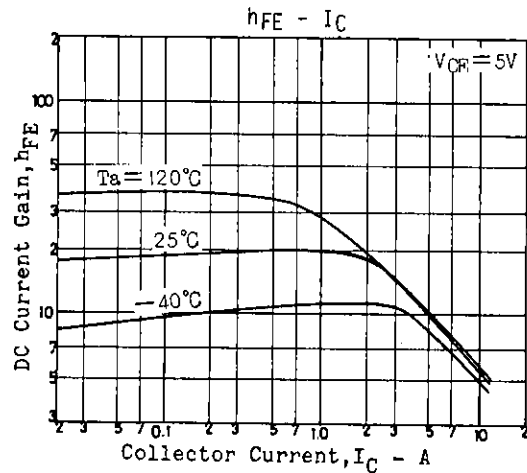
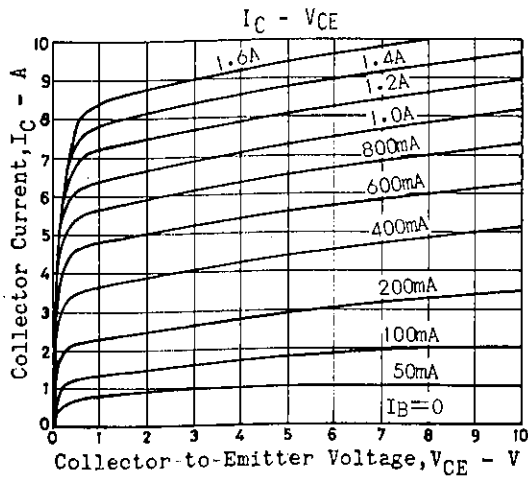
Package Dimensions 2022
(unit:mm)

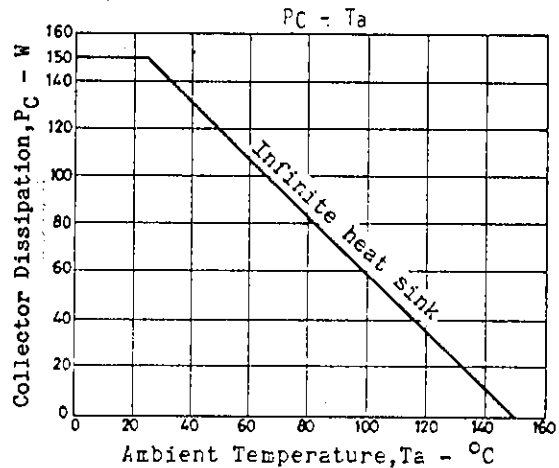
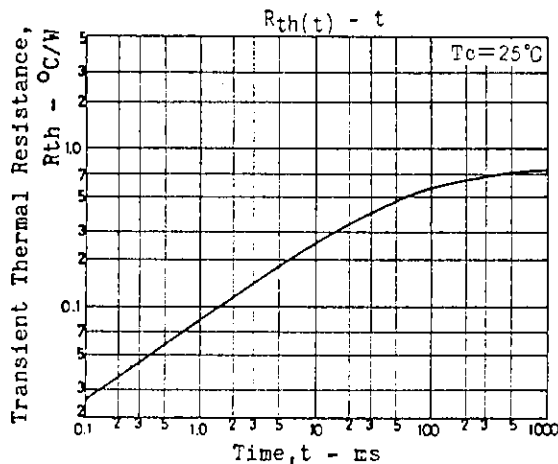
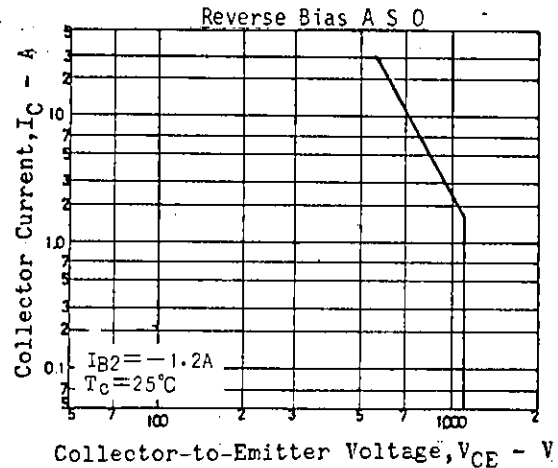
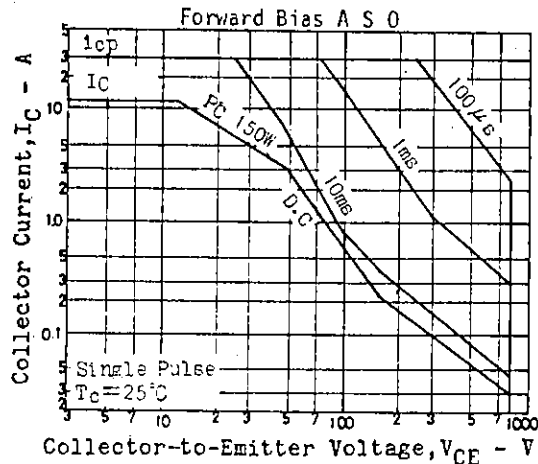
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4237AT/N295MW/3095KI/D054KI, TS No.1597-1/3

Switching Time Test Circuit

Unit (Resistance : Ω , Capacitance : F)



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