

SANYO	No.1597C	2SC3552
NPN Triple Diffused Planar Silicon Transistor		
800V/12A Switching Regulator Applications		

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 _{EB0}	7	V
Collector Current	I _C	12	A
Collector Current (Pulse)	I _{CP} PW \leq 300 μ s, Duty Cycle \leq 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 Ta=25°C

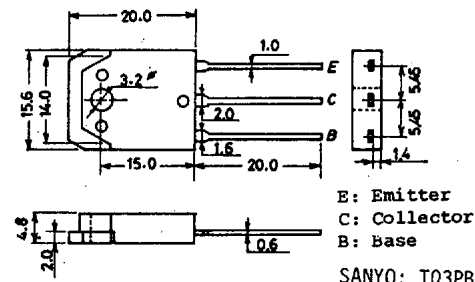
			min	typ	max	
Collector Cutoff Current	I _{CB0} V _{CB} =800V, I _E =0				10	μ A
Emitter Cutoff Current	I _{EB0} V _{EB} =5V, I _C =0				10	μ A
DC Current Gain	h _{FE} (1) V _{CE} =5V, I _C =0.8A	10*			40*	
	h _{FE} (2) V _{CE} =5V, I _C =4A	8				
Gain-Bandwidth Product	f _T V _{CE} =10V, I _C =0.8A			15		MHz
Output Capacitance	C _{ob} V _{CB} =10V, f=1MHz			215		pF
C-E Saturation Voltage	V _{CE(sat)} I _C =6A, I _B =1.2A			2.0		V
B-E Saturation Voltage	V _{BE(sat)} I _C =6A, I _B =1.2A			1.5		V
C-B Breakdown Voltage	V(BR)CBO I _C =1mA, I _E =0	1100				V
C-E Breakdown Voltage	V(BR)CEO I _C =5mA, R _{BE} = ∞	800				V
E-B Breakdown Voltage	V(BR)EBO I _E =1mA, I _C =0	7				V
C-E Sustain Voltage	V _{CEX(sus)} I _C =6A, I _{B1} =-I _{B2} =1.2A, L=500 μ H, Clamped	800				V
Turn-ON Time	t _{on} [V _{CC} =400V, 5I _{B1} =-2.5I _{B2} =I _C =8A, R _L =500 Ω]			0.5		μ s
Storage Time	t _{stg}			3.0		μ s
Fall Time	t _f			0.3		μ s

*: 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)

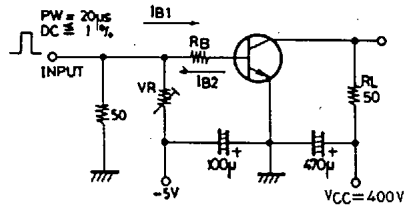


E: Emitter
C: Collector
B: Base
SANYO: TQ3PB

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Switching Time Test Circuit



Unit (Resistance : Ω, Capacitance : F)

