



SANYO Semiconductors

## DATA SHEET

# TT2274T

 — NPN Triple Diffused Planar Silicon Transistor  
**Switching Regulator Applications**

## Features

- High breakdown voltage ( $V_{CB0} \geq 1400V$ ).
- Ultrahigh-speed switching.
- Wide ASO.

## Specifications

### Absolute Maximum Ratings at $T_a = 25^\circ C$

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	$V_{CB0}$		1400	V
Collector-to-Emitter Voltage	$V_{CEO}$		800	V
Emitter-to-Base Voltage	$V_{EBO}$		5	V
Collector Current	$I_C$		1	A
Collector Current (Pulse)	$I_{CP}$	$PW \leq 300\mu s$ , duty cycle $\leq 10\%$	2	A
Collector Dissipation	$P_C$		1	W
		$T_c = 25^\circ C$	25	W
Junction Temperature	$T_J$		150	$^\circ C$
Storage Temperature	$T_{stg}$		-55 to +150	$^\circ C$

### Electrical Characteristics at $T_a = 25^\circ C$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = 800V$ , $I_E = 0A$			10	$\mu A$
Collector Cutoff Current	$I_{CES}$	$V_{CB} = 1400V$ , $R_{BE} = 0\Omega$			1	mA
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 4V$ , $I_C = 0A$			1	mA
DC Current Gain	$h_{FE1}$	$V_{CE} = 5V$ , $I_C = 0.1A$		15	35	
	$h_{FE2}$	$V_{CE} = 5V$ , $I_C = 0.5A$		4		

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# TT2274T

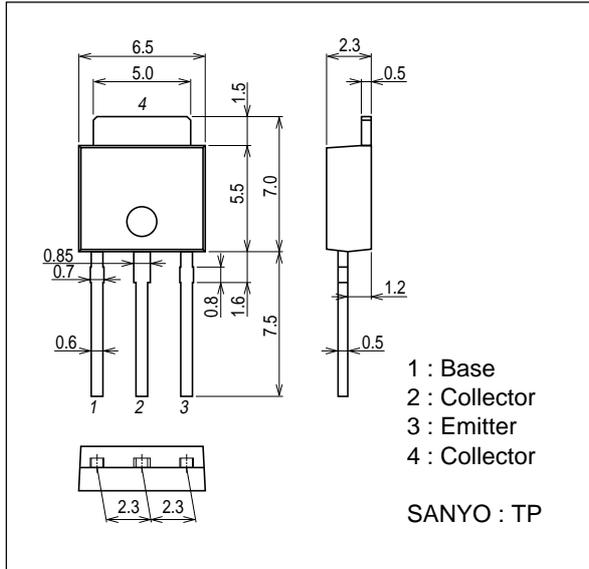
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=0.25A, I_B=0.05A$			1.5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=0.5A, I_B=0.1A$			1.5	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=1mA, I_E=0A$	1400			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=5mA, R_{BE}=\infty$	800			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=1mA, I_C=0A$	5			V
Storage Time	$t_{stg}$	$I_C=0.5A, I_{B1}=0.1A, I_{B2}=-0.25A, R_L=400\Omega, V_{CC}=200V$		1.5	3.0	$\mu s$
Fall Time	$t_f$	$I_C=0.5A, I_{B1}=0.1A, I_{B2}=-0.25A, R_L=400\Omega, V_{CC}=200V$		0.25	0.4	$\mu s$

## Package Dimensions

unit : mm (typ)

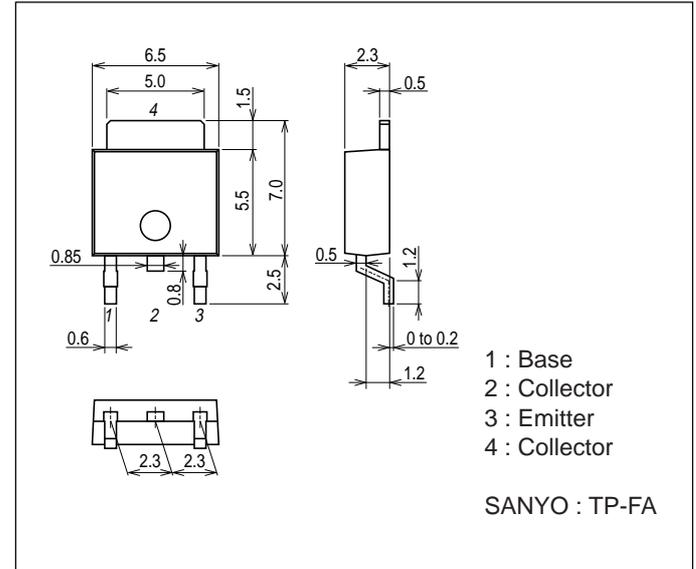
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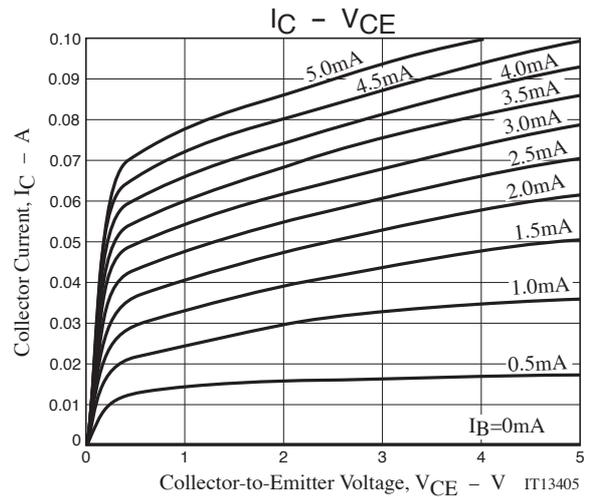
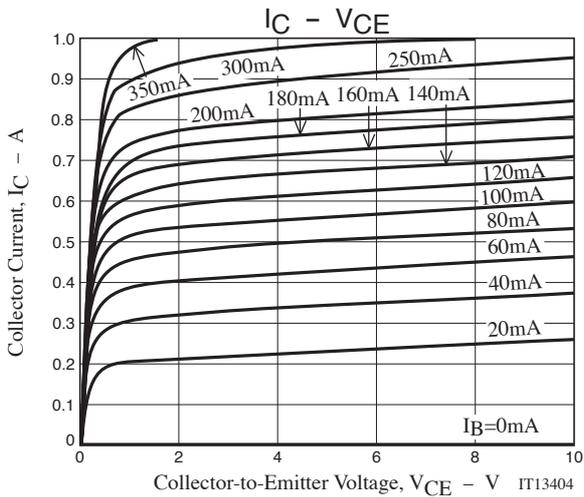
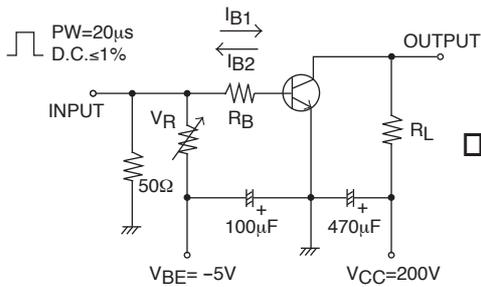
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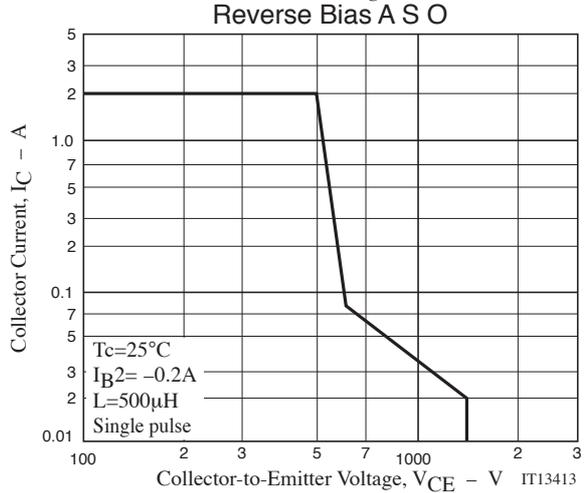
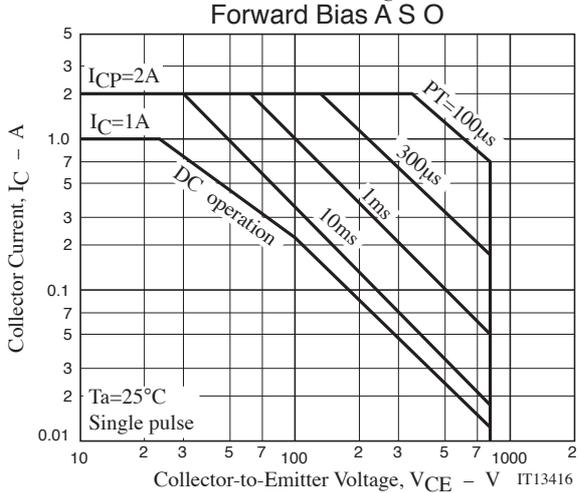
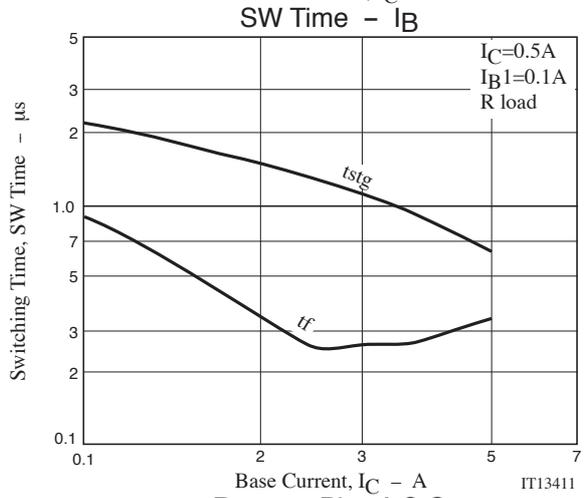
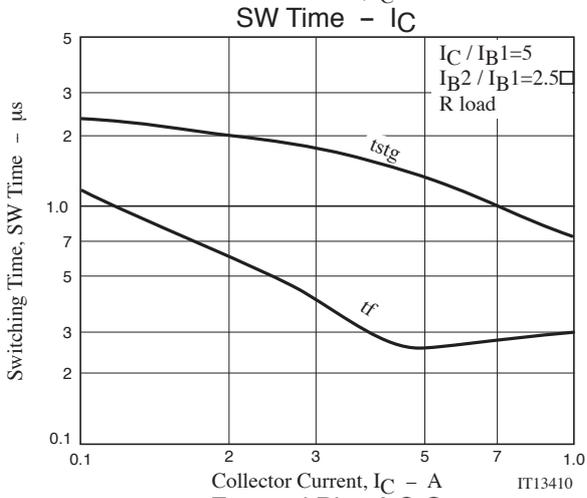
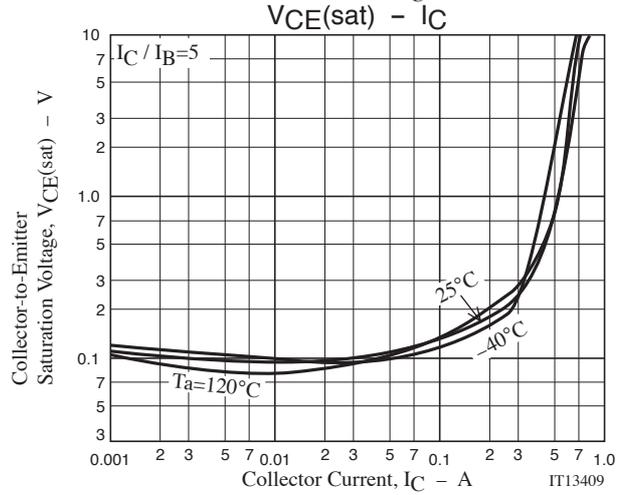
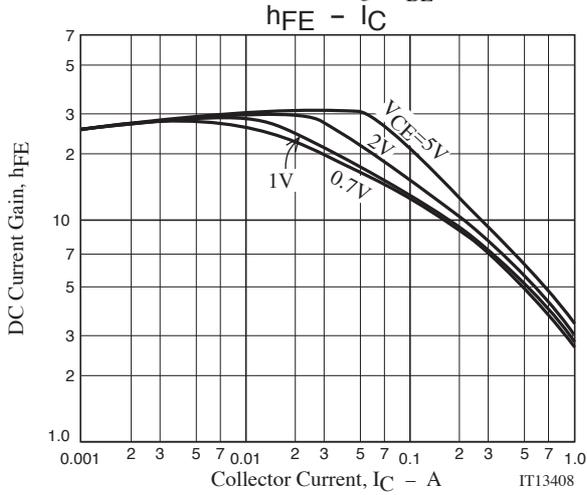
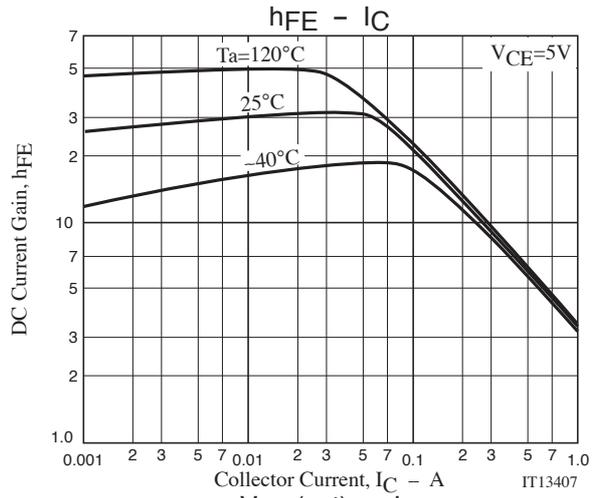
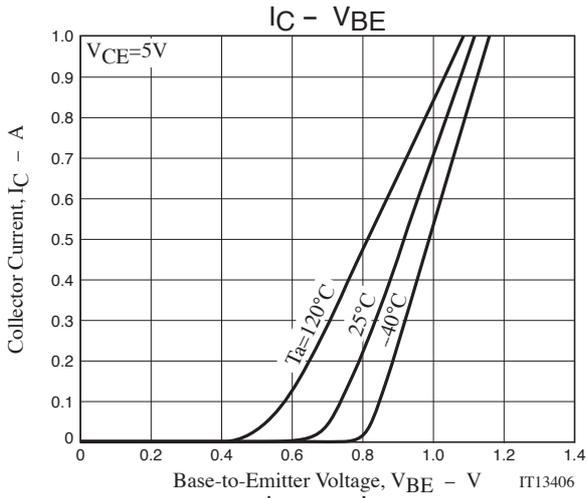
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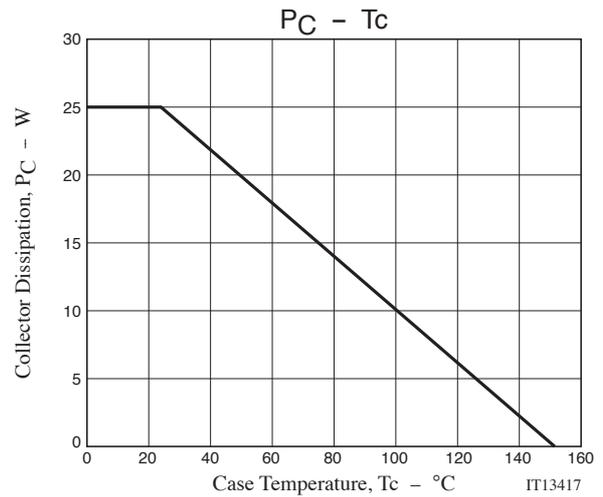
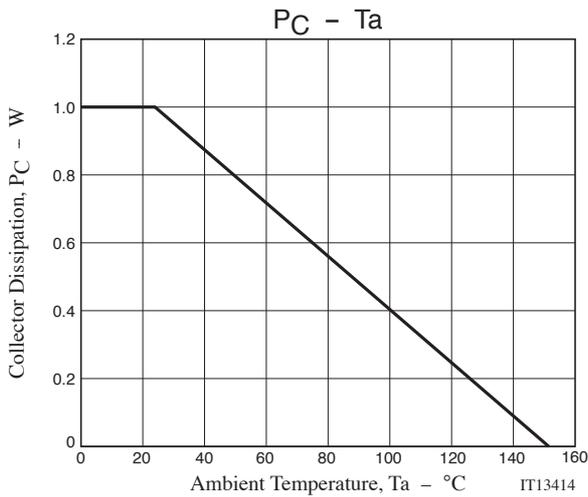
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## Switching Time Test Circuit







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