

SANYO	No.2763	2SC4224
	NPN Triple Diffused Planar Silicon Transistor Switching Regulator Applications	

Features

- . High breakdown voltage, high reliability
- . Fast switching speed ($t_f: 0.1\mu s$ typ)
- . Wide ASO
- . Adoption of MBIT process
- . Suitable for sets whose height is restricted

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

			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	3	A
Peak Collector Current	i_{cp} $PW \leq 300\mu s, duty\ cycle \leq 10\%$	10	A
Base Current	I_B	1.5	A
Collector Dissipation	P_C $T_a=25^\circ C$	1.65	W
		$T_c=25^\circ C$	50
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature	T_{stg}	-55 to +150	$^\circ C$

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

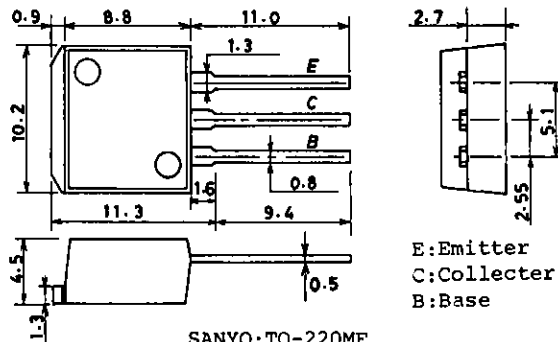
			min	typ	max	unit
Collector Cutoff Current	I_{CBO} $V_{CB}=800V, I_E=0$				10	μA
Emitter Cutoff Current	I_{EBO} $V_{EB}=5V, I_C=0$				10	μA
DC Current Gain	$h_{FE(1)}$ $V_{CE}=5V, I_C=0.2A$		10*		40*	
		$h_{FE(2)}$ $V_{CE}=5V, I_C=1A$	8			
Gain-Bandwidth Product	f_T $V_{CE}=10V, I_C=0.2A$			15		MHz
Output Capacitance	c_{ob} $V_{CB}=10V, f=1MHz$			60		pF

Continued on next page.

*: The $h_{FE(1)}$ of the 2SC4224 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 2049
(unit: mm)

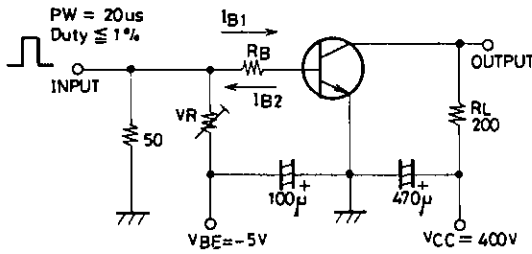


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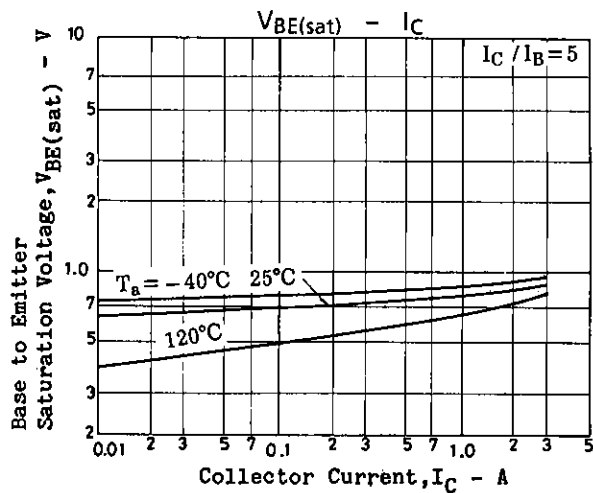
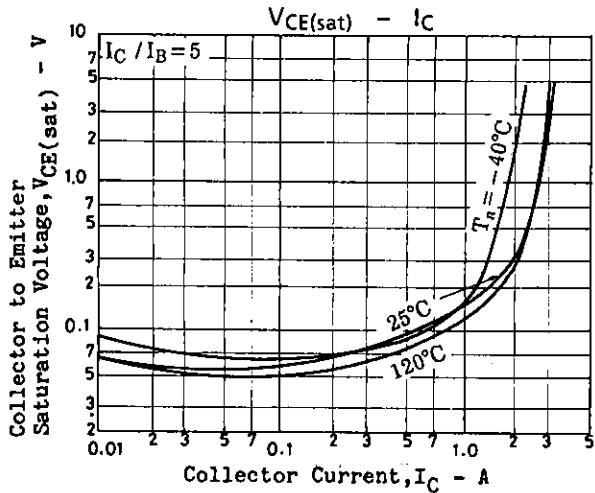
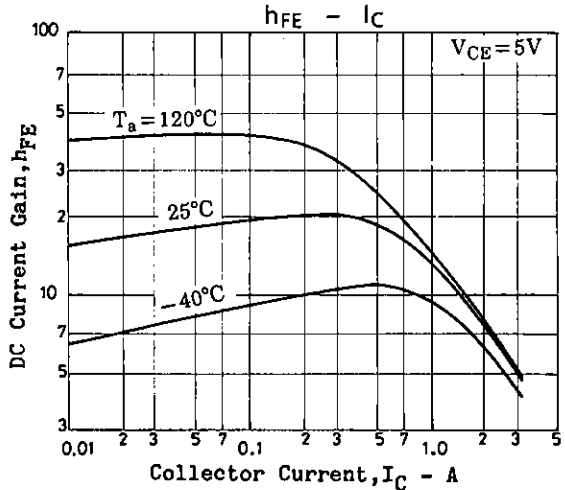
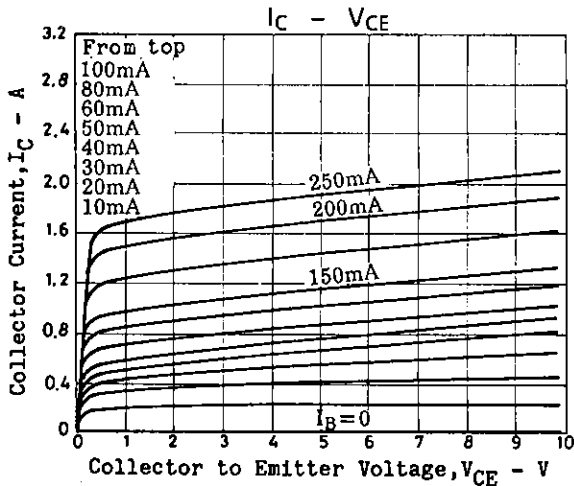
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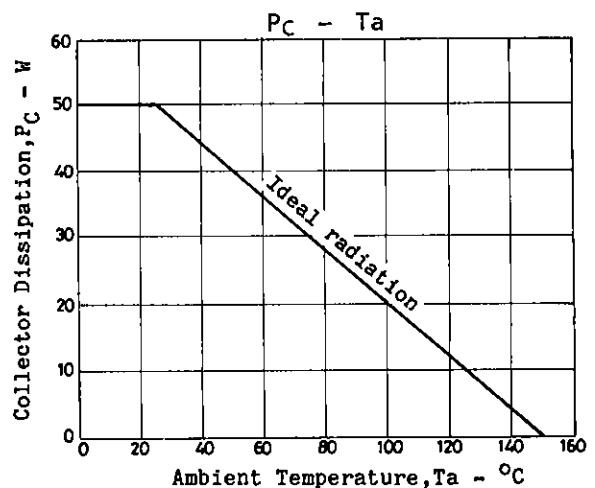
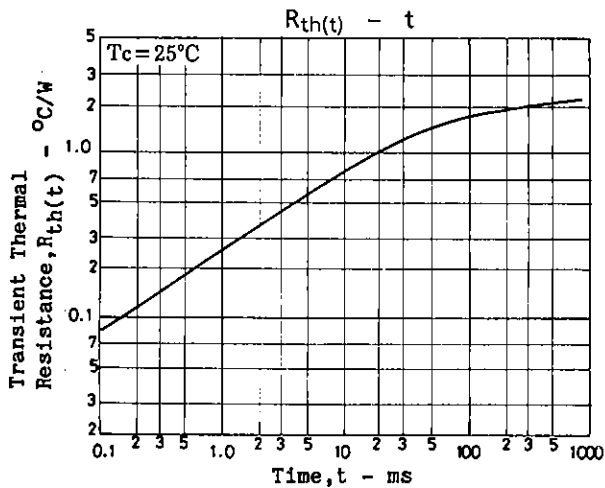
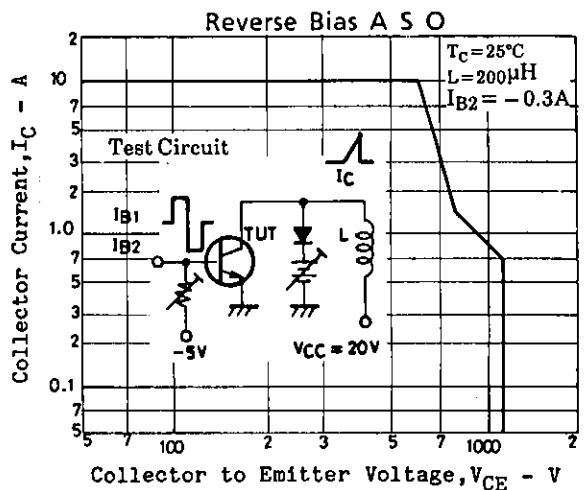
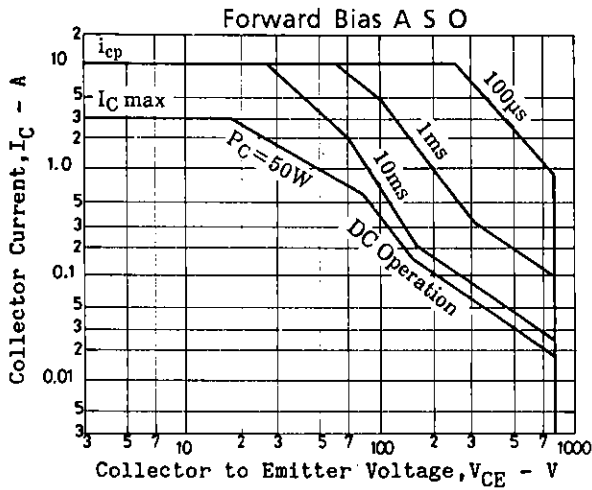
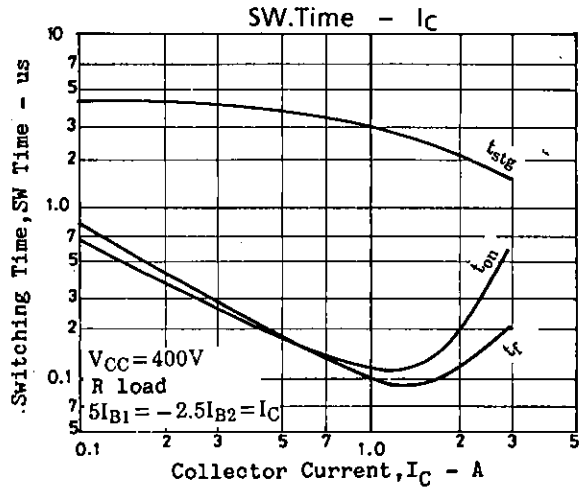
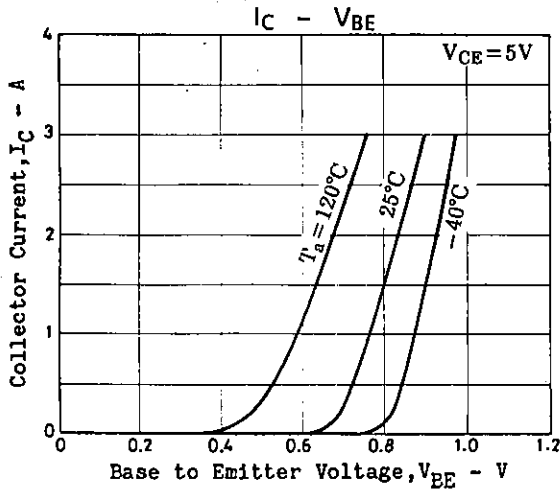
			min	typ	max	unit
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=1.5A, I_B=0.3A$			2.0	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C=1.5A, I_B=0.3A$			1.5	V
C-B Breakdown Voltage	$V^{(BR)}_{CBO}$	$I_C=1mA, I_E=0$	1100			V
C-E Breakdown Voltage	$V^{(BR)}_{CEO}$	$I_C=5mA, R_{BE}=\infty$	800			V
E-B Breakdown Voltage	$V^{(BR)}_{EBO}$	$I_E=1mA, I_C=0$	7			V
C-E Sustain Voltage	$V_{CEX(sus)}$	$I_C=1.5A$	800			V
Rise Time	t_{on}	$I_C=2A, I_{B1}=0.4A,$ $I_{B2}=-0.8A, R_L=200\Omega,$ $V_{CC}=400V$			0.5	μs
Storage Time	t_{stg}				3.0	μs
Fall Time	t_f				0.3	μs

Switching Time Test Circuit



Unit (resistance: Ω , capacitance: F)





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