	No. 1546B	<h1 style="margin: 0;">2SC3448</h1> <p style="margin: 0;">NPN Triple Diffused Planar Silicon Transistor FOR SWITCHING REGULATORS</p>
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Use

- Switching regulator

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

			unit
Collector-to-Base Voltage	V_{CB0}	800	V
Collector-to-Emitter Voltage	V_{CE0}	500	V
Emitter-to-Base Voltage	V_{EB0}	7	V
Collector Current	I_C	4	A
Peak Collector Current	i_{cp} $PW \leq 300\mu\text{s}$, Duty Cycle $\leq 10\%$	8	A
Base Current	I_B	1.5	A
Collector Dissipation	P_C $T_C=25^\circ\text{C}$	60	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

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

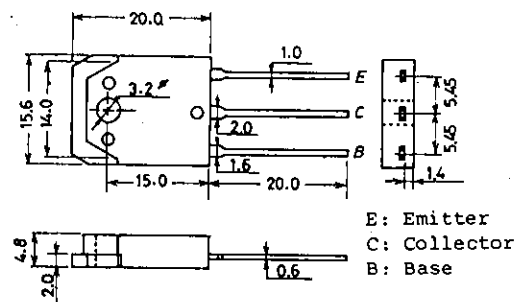
			min	typ	max	unit
Collector Cutoff Current	I_{CBO} $V_{CB}=500\text{V}, I_E=0$				10	μA
Emitter Cutoff Current	I_{EBO} $V_{EB}=5\text{V}, I_C=0$				10	μA
DC Current Gain	$h_{FE(1)}$ $V_{CE}=5\text{V}, I_C=0.3\text{A}$		15*		50*	
	$h_{FE(2)}$ $V_{CE}=5\text{V}, I_C=1.5\text{A}$		8			
Gain-Bandwidth Product	f_T $V_{CE}=10\text{V}, I_C=0.3\text{A}$			18		MHz
Output Capacitance	C_{ob} $V_{CB}=10\text{V}, f=1\text{MHz}$			50		pF
C-E Saturation Voltage	$V_{CE(sat)}$ $I_C=1.5\text{A}, I_B=0.3\text{A}$				1.0	V
B-E Saturation Voltage	$V_{BE(sat)}$ $I_C=1.5\text{A}, I_B=0.3\text{A}$				1.5	V
C-B Breakdown Voltage	$V_{(BR)CBO}$ $I_C=1\text{mA}, I_E=0$	800				V
C-E Breakdown Voltage	$V_{(BR)CEO}$ $I_C=5\text{mA}, R_{BE}=\infty$	500				V
E-B breakdown Voltage	$V_{(BR)EBO}$ $I_E=1\text{mA}, I_C=0$	7				V

*: The $h_{FE(1)}$ of the 2SC3448 is classified as follows. When specifying the $h_{FE(1)}$ rank, specify two ranks or more in principle.

15	L	30	20	M	40	30	N	50
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Package Dimensions 2022
(unit:mm)

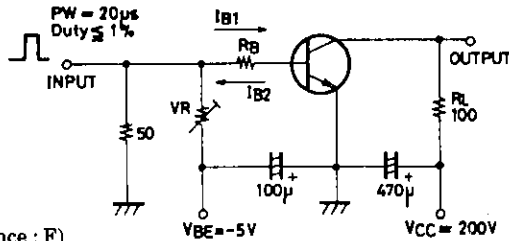


2SC3448

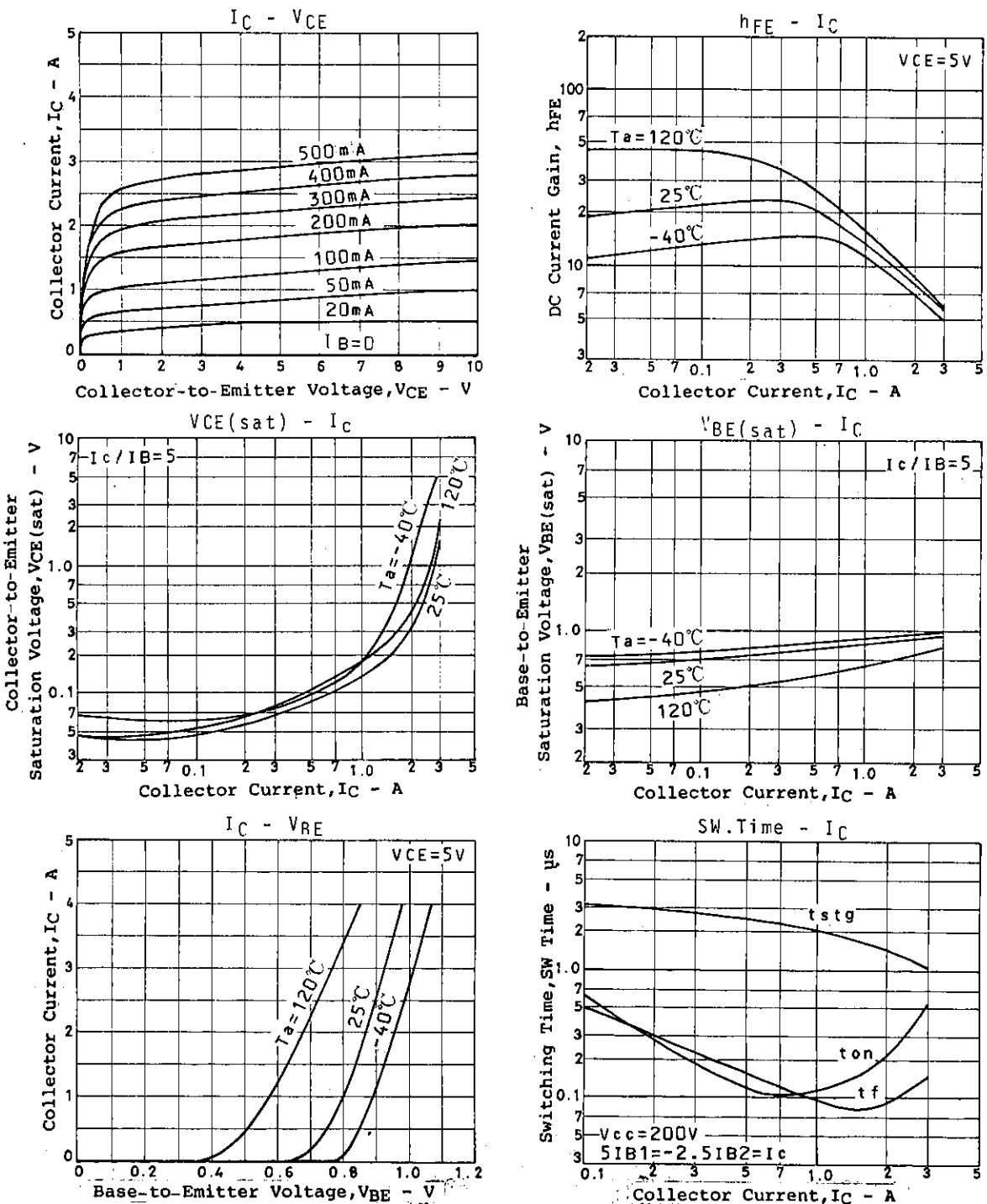
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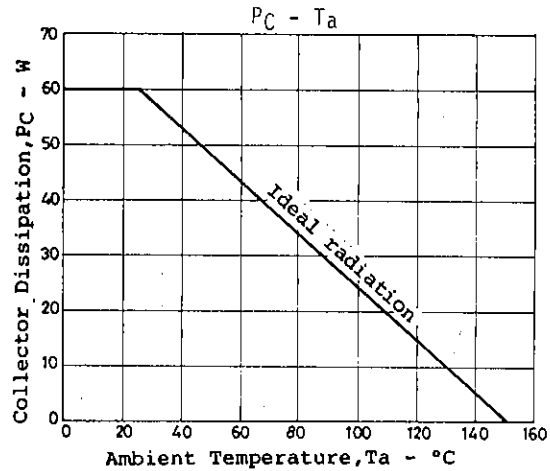
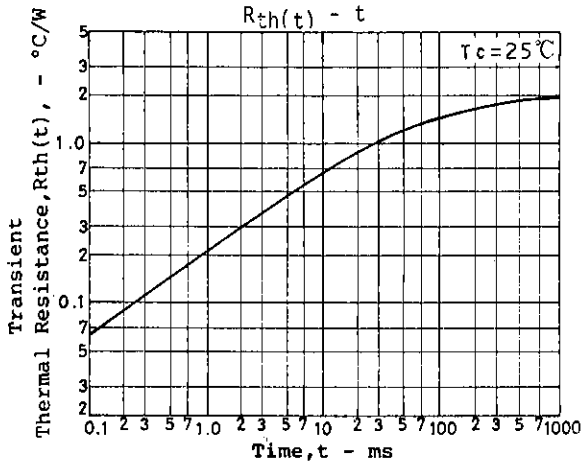
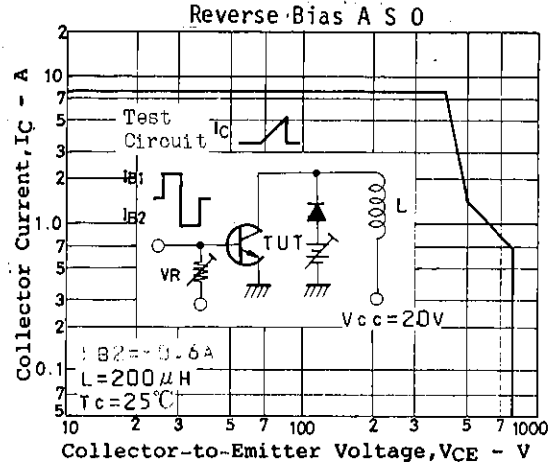
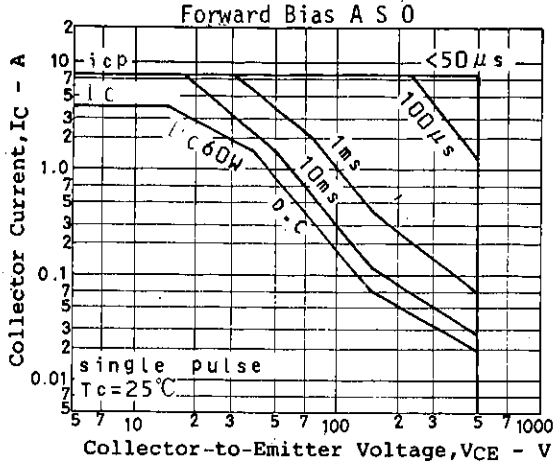
			min	typ	max	unit
C-E Sustain Voltage	$V_{CEX}(sus)$	$I_C=1.5A$ $I_{B1}=-I_{B2}=0.6A$ $L=1mH$, clamped	500			V
Turn-on Time	t_{on}	$V_{CC}=200V$, $5I_{B1}=-2.5I_{B2}=I_C=2A$, $R_L=100ohms$			0.5	μs
Storage Time	t_{stg}		3.0	μs		
Fall Time	t_f		0.3	μs		

Switching Time Test Circuit



Unit (Resistance : Ω , Capacitance : F)





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