

No.3331

2SC4460

NPN Triple Diffused Planar Silicon Transistor

SANYO**500V/15A Switching Regulator Applications****Features**

- High breakdown voltage, high reliability
- Fast switching speed
- Wide ASO
- Adoption of MBIT process
- Micaless package facilitating mounting

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

			unit
Collector-to-Base Voltage	V_{CBO}	800	V
Collector-to-Emitter Voltage	V_{CEO}	500	V
Emitter-to-Base Voltage	V_{EBO}	7	V
Collector Current	I_C	15	A
Collector Current (Pulse)	I_{CP}	25	A
Base Current	I_B	4	A
Collector Dissipation	P_C	3	W
		55	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

 $PW \leq 300 \mu\text{s}, \text{duty cycle} \leq 10\%$ $T_c = 25^\circ\text{C}$ **Electrical Characteristics at $T_a = 25^\circ\text{C}$**

		min	typ	max	unit
Collector Cutoff Current	I_{CBO}			10	μA
Emitter Cutoff Current	I_{EBO}			10	μA
DC Current Gain	$h_{FE}(1)$	15*		50*	
	$h_{FE}(2)$	8			
Gain-Bandwidth Product	f_T		18		MHz
Output Capacitance	C_{ob}		160		pF
C-E Saturation Voltage	$V_{CE(sat)}$			1.0	V
B-E Saturation Voltage	$V_{BE(sat)}$			1.5	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	800			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	500			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	7			V
C-E Sustain Voltage	$V_{CEX(sus)}$	500			V

 $I_C = 1\text{mA}, I_E = 0$
 $V_{CE} = 5\text{V}, I_C = 1.2\text{A}$
 $V_{CE} = 5\text{V}, I_C = 6\text{A}$
 $V_{CE} = 10\text{V}, I_C = 1.2\text{A}$
 $V_{CB} = 10\text{V}, f = 1\text{MHz}$
 $I_C = 6\text{A}, I_B = 1.2\text{A}$
 $I_C = 6\text{A}, I_B = 1.2\text{A}$
 $I_C = 1\text{mA}, I_E = 0$
 $I_C = 5\text{mA}, R_{BE} = \infty$
 $I_E = 1\text{mA}, I_C = 0$
 $I_C = 5\text{A}, I_{B1} = -I_{B2} = 2\text{A},$
 $L = 500 \mu\text{H}, \text{clamped}$

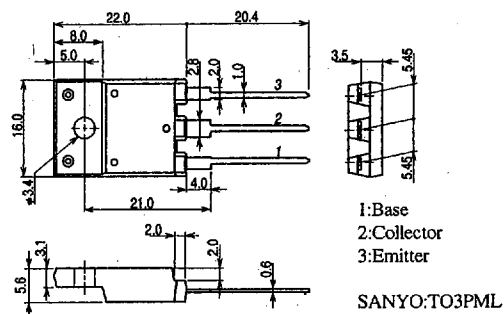
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*: For the $h_{FE}(1)$ of the 2SC4460, specify two ranks or more in principle.

15 L 30	20 M 40	30 N 50
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Package Dimensions 2039D

(unit: mm)

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7190MH, TA(KOTO) No.3331-1/3

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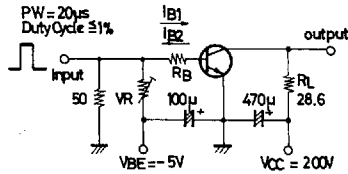
Turn-ON time
Storage Time
Fall Time

t_{on}
 t_{stg}
 t_f

$V_{CC}=200V,$
 $5I_{B1} = -2.5I_{B2} = I_C = 7A,$
 $R_L = 28.6\Omega$

min	typ	max	unit
		0.5	μs
		3.0	μs
		0.3	μs

Switching Time Test Circuit

Unit (resistance : Ω , capacitance : F)