

SANYO

No.2482

2SC4161

NPN Triple Diffused Planar Type
Silicon Transistor

SWITCHING REGULATOR APPLICATIONS

Features

- High breakdown voltage, high reliability
- Fast switching speed ($t_F \approx 0.1 \mu s$ typ)
- Wide ASO
- Adoption of MBIT process
- Micaless package facilitating mounting

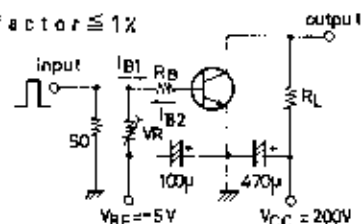
Absolute Maximum Ratings at $T_a = 25^\circ C$

			unit	
Collector-to-Base Voltage	V_{CBO}	500	V	
Collector-to-Emitter Voltage	V_{CEO}	400	V	
Emitter-to-Base Voltage	V_{EBO}	7	V	
Collector Current	I_C	7	A	
Peak Collector Current	i_{cp}	$PW \leq 300\mu s, \text{duty cycle} \leq 10\%$	14	A
Base Current	I_B	3	A	
Collector Dissipation	P_C	2	W	
		$T_c = 25^\circ C$	30	W
Junction Temperature	T_J	150	$^\circ C$	
Storage Temperature	T_{stg}	-55 to +150	$^\circ C$	

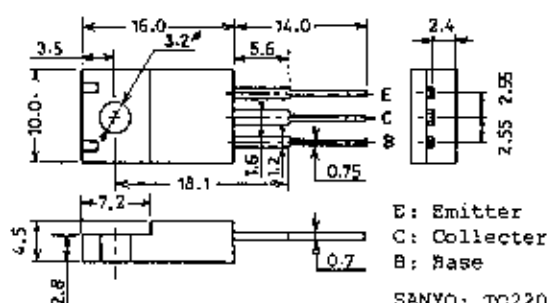
Electrical Characteristics at $T_a = 25^\circ C$

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 400V, I_E = 0$			10	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 5V, I_C = 0$			10	μA
DC Current Gain	h_{FE1}	$V_{CE} = 5V, I_C = 0.8A$	15*		50*	
	h_{FE2}	$V_{CE} = 5V, I_C = 4A$	10			
	h_{FE3}	$V_{CE} = 5V, I_C = 10mA$	10			
Gain-Bandwidth Product	f_T	$V_{CE} = 10V, I_C = 0.8A$		20		MHz
Output Capacitance	c_{ob}	$V_{CB} = 10V, f = 1MHz$		80		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = 4A, I_B = 0.8A$			0.8	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = 4A, I_B = 0.8A$			1.5	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 1mA, I_E = 0$	500			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 5mA, R_{BE} = \infty$	400			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 1mA, I_C = 0$	7			V

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Switching Time Test Circuit $PW = 20 \mu s, \text{duty factor} \leq 1\%$ Unit (Resistance: Ω , Capacitance: F)**Package Dimensions 2041**

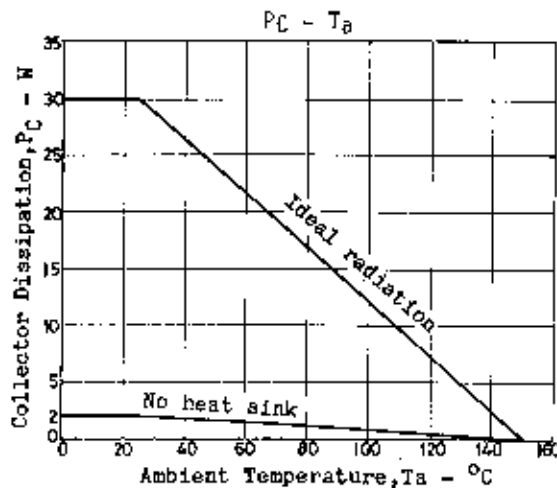
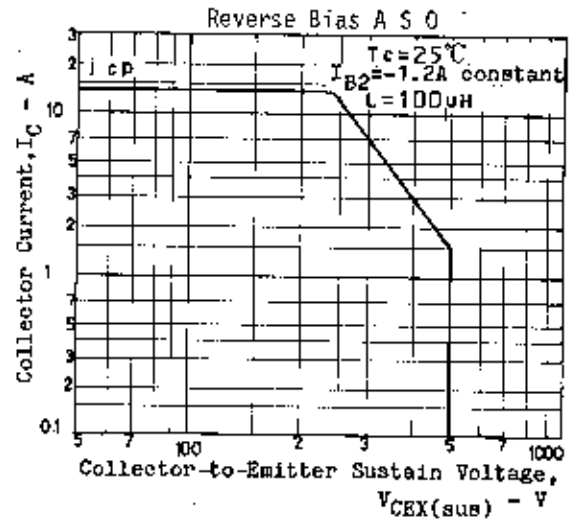
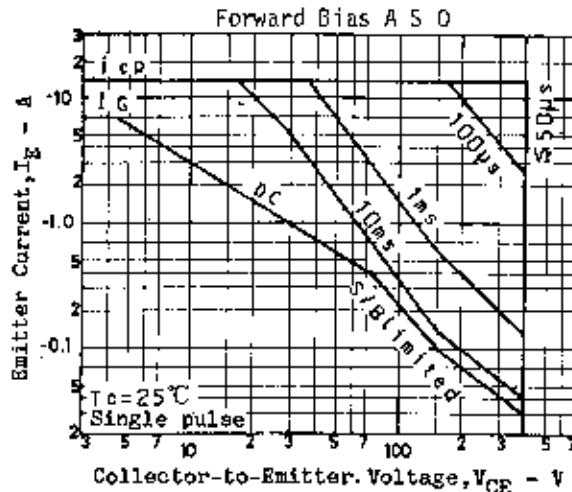
(unit:mm)



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