



**SANKEN ELECTRIC COMPANY, LTD.**

**5. Absolute Maximum Ratings (Ta=25°C)**

Description	Symbol	Rating	Unit	Conditions
T <sub>r1</sub> Collector-Emitter Voltage	V <sub>CEX</sub>	500	V	※1
Applied Voltage of pin #2-#4	V <sub>2-4</sub>	12	V	
Applied Voltage of pin #2-#5	V <sub>2-5</sub>	12	V	
Applied Voltage of pin #7-#6	V <sub>7-6</sub>	5	V	
T <sub>r1</sub> Collector Current	I <sub>c</sub> (T <sub>r1</sub> )	10	A	Pulse 20 ※2
T <sub>r4</sub> Collector Current	I <sub>c</sub> (T <sub>r4</sub> )	500	mA	
D <sub>2</sub> Forward Current	I <sub>IN</sub> (D <sub>2</sub> )	500	mA	
Maximum Power Dissipation	P <sub>D</sub>	3.2	W	Without Heatsink
		2.7		T <sub>CG1</sub> =100°C
T <sub>r1</sub> Junction Temperature	T <sub>J</sub>	+150	°C	
Operating Frame Temperature	T <sub>CG2</sub>	-20~+125	°C	※4
Storage Temperature	T <sub>STG</sub>	-30~+125	°C	
Maximum Output Current	I <sub>O</sub>	1.7	A	V <sub>O</sub> = 115V ※5

※1 : Reference value V<sub>CEO</sub> = 400V Min.

※2 : Pulse condition is similar to what the bias ASO curve regulates.

※3 : T<sub>CG1</sub>: The temperature of resin which is below the Power Transistor.

※4 : T<sub>CG2</sub>: Denotes the temperature of internal frame. Recommended T<sub>CG2</sub>=100°C Max.

※5 : Please refer to the Application Circuit of P.4

**6. Electrical Characteristic (Ta=25°C) ★:Characteristic of T<sub>1</sub>**

Description	Symbol	Rating	Unit	Condition
Reference Voltage	V <sub>REF</sub>	41.8±0.3	V	I <sub>IN</sub> =7mA, Circuit #1
Temperature Coefficient of Reference Voltage		±2 Typ.	mV/°C	T <sub>c</sub> =-20~+100°C I <sub>IN</sub> =7mA, Circuit #1
Collector Saturation Voltage★	V <sub>CE(SAT)</sub>	0.5 Max.	V	I <sub>c</sub> =6A, I <sub>B</sub> =1.2A
Collector Cut-off Voltage★	I <sub>CEX</sub>	1 Max.	mA	V <sub>CE</sub> =500V, V <sub>BE</sub> =-1.5V
Base-Emitter Saturation Voltage★	V <sub>BE(SAT)</sub>	1.5 Max.	V	I <sub>c</sub> =6A, I <sub>B</sub> =1.2A
DC Current Gain★	h <sub>FE</sub>	15~40		V <sub>CE</sub> =4V, I <sub>c</sub> =1A
Thermal Resistance★	θ <sub>J-CG2</sub>	0.7	°C/W	Between Junction and Internal Frame
Switching Time★	t <sub>s</sub>	10 Max.	μs	Circuit #2
	t <sub>r</sub>	0.6 Max.	μs	Circuit #2

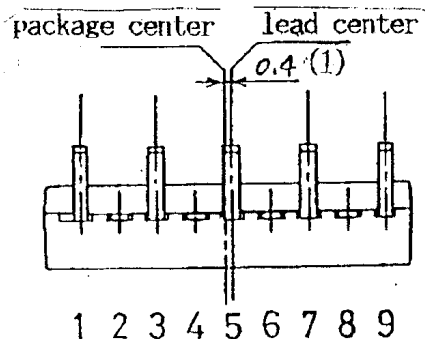
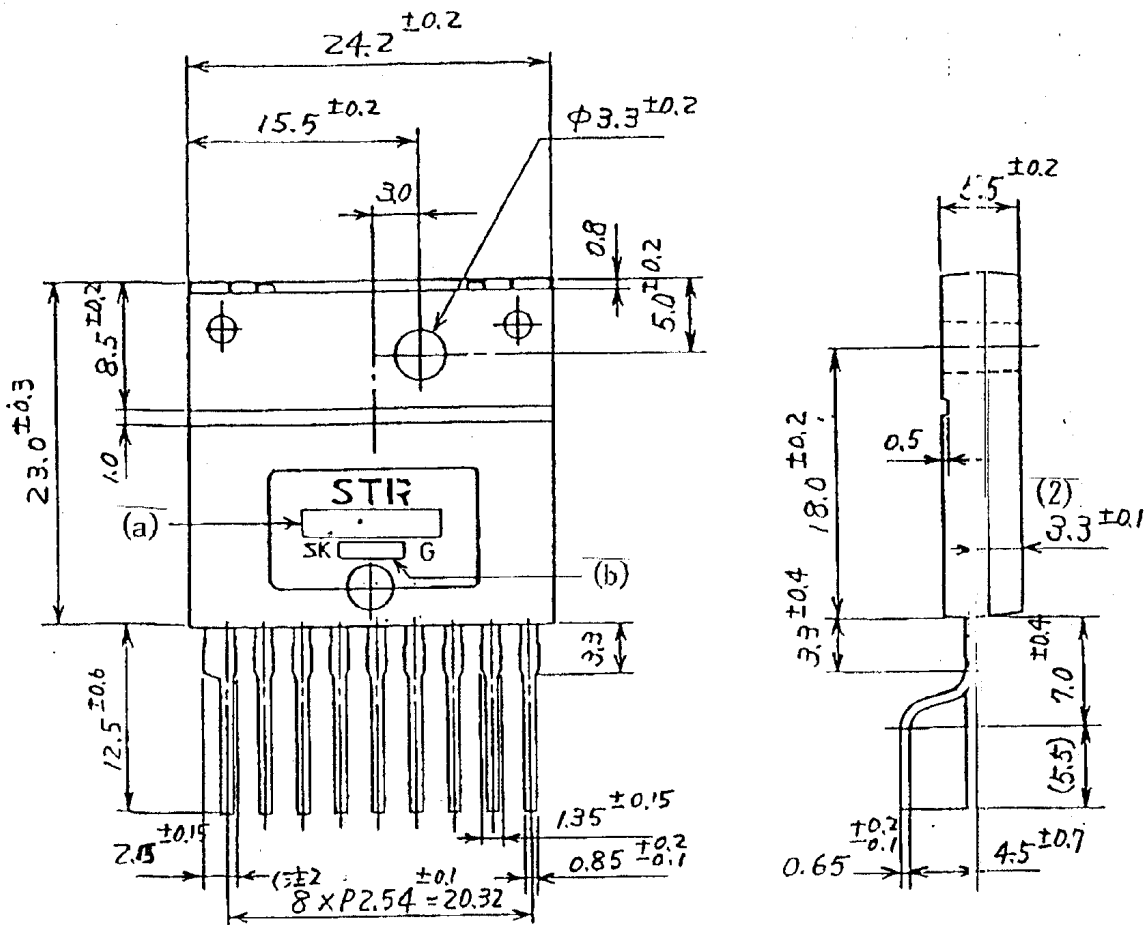
Date: July 25, 1990

Specification No.:

SSE-17167E

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# SANKEN ELECTRIC COMPANY, LTD.



(a) Type Number S5141

(b) Lot Number  
 1st digit for All Year  
 2nd digit for Month  
 1~9: Jan.~Sept.  
 O: Oct.  
 N: Nov.  
 D: Dec.  
 3rd & 4th digit for Date

(1) The lead center is offset by 0.4 mm from the center of the package.  
 (2) The dimension measured at the closest point to the body.