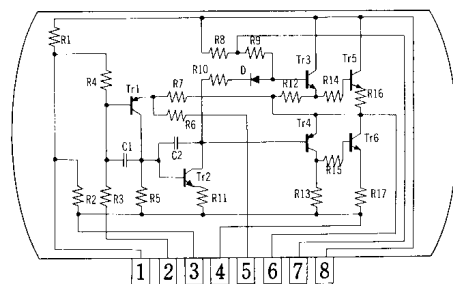


ELECTRICAL CHARACTERISTICS

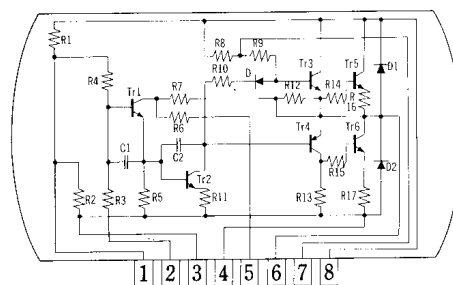
At 25°C ambient, 1kHz, $R_L=8\text{ ohms}$

Characteristic	SI-1010G	SI-1020G	SI-1030G	SI-1050G
Maximum rms Power	10W	20W	30W	50W
Supply Voltage	34V or $\pm 17V$	46V or $\pm 23V$	54V or $\pm 27V$	66V or $\pm 33V$
Absolute Max. Supply Voltage	45V or $\pm 22.5V$	55V or $\pm 25V$	60V or $\pm 30V$	80V or $\pm 40V$
Supply Current (ave.)	0.50A	0.72A	0.86A	1.1A
Protective Fusing	1A Quick Blow	1A Quick Blow	1.5A Quick Blow	2A Quick Blow
Harmonic Distortion at Full Output	0.5% max.	0.5% max.	0.5% max.	0.5% max.
Input Voltage	0.30V typ.	0.42V typ.	0.52V typ.	0.70V typ.
Maximum Input Voltage	1 V	1 V	1 V	1 V
Voltage Gain Full Feedback ($P_o=1W$)	30dB typ.	30dB typ.	30dB typ.	30dB typ.
Input Impedance	40,000 ohms typ.	40,000 ohms typ.	40,000 ohms typ.	40,000 ohms typ.
Output Impedance ($P_o=1W$)	0.2 ohm typ.	0.2 ohm typ.	0.2 ohm typ.	0.2 ohm typ.
Load Current (rms)	1.12A typ.	1.58A typ.	1.94A typ.	2.50A typ.
Output Voltage (rms)	8.95V typ.	12.65V typ.	15.5V typ.	20.0V typ.
Signal to Noise Ratio (Input Shorted)	90dB typ.	90dB typ.	90dB typ.	90dB typ.
Idling Current	20mA typ.	20mA typ.	20mA typ.	20mA typ.
Frequency Range ($P_o=1W$)	20Hz to 100kHz	20Hz to 100kHz	20Hz to 100kHz	20Hz to 100kHz
Power Bandwidth ($-3dB$)	20Hz to 20kHz	20Hz to 20kHz	20Hz to 20kHz	20Hz to 20kHz
Operating Temperature	$-10^{\circ}C$ to $+70^{\circ}C$	$-20^{\circ}C$ to $+80^{\circ}C$	$-20^{\circ}C$ to $+80^{\circ}C$	$-20^{\circ}C$ to $+80^{\circ}C$
Storage Temperature	$-25^{\circ}C$ to $+85^{\circ}C$	$-30^{\circ}C$ to $+100^{\circ}C$	$-30^{\circ}C$ to $+100^{\circ}C$	$-30^{\circ}C$ to $+100^{\circ}C$
Built-in Protection	—	—	current limiting	current limiting

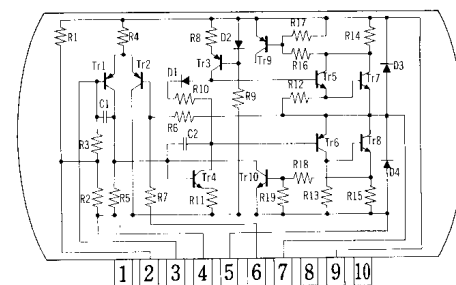
SI-1010G



SI-1020G



SI-1030G & SI-1050G



TERMINAL ASSIGNMENTS

A. With single power supply

1. Ripple filter capacitor (+)
2. Input (+)
3. Input (-)
4. Ground for power supply & ground for output
5. Feedback
6. Output
7. Boot strap capacitor(+)
8. Power supply (+)

B. With split (dual) power supply

1. Ripple filter capacitor (-)
2. Input (+)
3. N.C.
4. Power supply (-)
5. Feedback
6. Output
7. Boot strap capacitor (+)
8. Power supply (+)

A. With single power supply B. With split (dual) power supply

- | | |
|--|-------------------------------------|
| 1. Spare | 1. Spare |
| 2. +terminal of noise suppression capacitor | 2. Input (-) & ground terminal |
| 3. Input (+) | 3. Input (+) |
| 4. Input (-) | 4. Not used |
| 5. Ground for power supply & ground for output | 5. Power supply (-V _{CC}) |
| 6. Feedback | 6. Feedback |
| 7. Output | 7. Output |
| 8. N.C. | 8. N.C. |
| 9. Power supply (+) | 9. Power supply (+V _{CC}) |
| 10. N.C. | 10. N.C. |

SI-1010G & SI-1020G (A : Single power supply) (B : Split power supply)

[illegible]

SI-1030G & SI-1050G (A : Single power supply) (B : Split power supply)

The diagram shows a two-channel power amplifier circuit. Each channel (CH-1 and CH-2) consists of an input stage with a variable resistor V_R (10k Ω) and a 1V maximum input. The signal is coupled to an op-amp (pin 3) through a 50V 10 μ F capacitor. The op-amp is configured with a feedback network (pins 2, 4, 5, 6, 7) including a 50V 22 μ F capacitor and a 10 Ω 1/4W resistor. The output of each channel (pin 9) is connected to a common load through a 1.5A (2A) fuse. The load is a transformer with a primary winding connected to the amplifier outputs and a secondary winding connected to an AC line through a switch (SW) and a 2A fuse. The transformer specifications are: 80VA ~ 100VA, (120VA ~ 140VA), AC40V 2.2A, (AC50V 2.2A). The circuit is powered by a 75V 3300 μ F capacitor connected to the AC line.

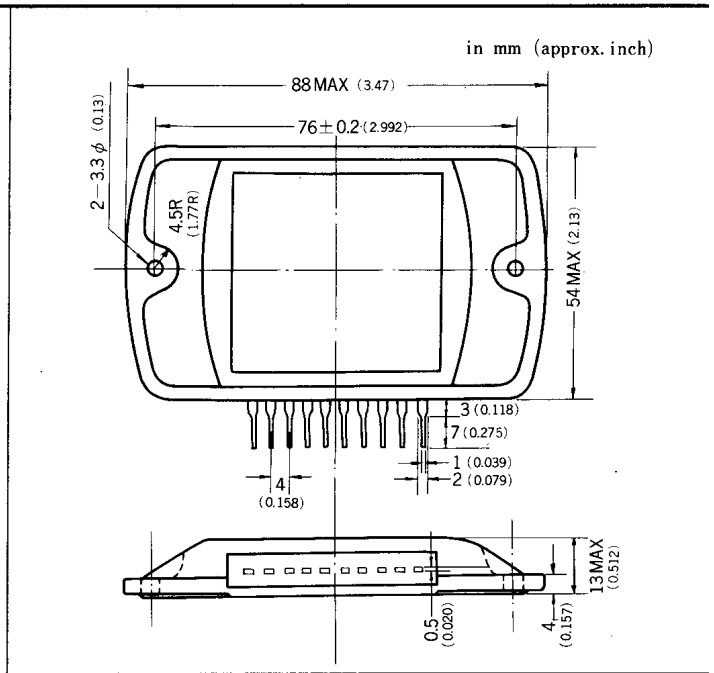
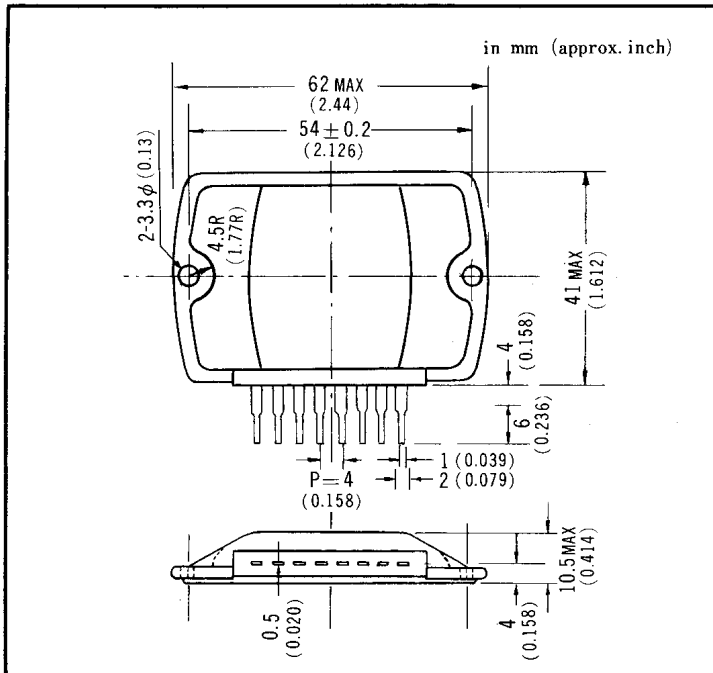
[illegible]

() only for SI-1050G

OUTLINE DRAWINGS

(SI-1010G & SI-1020G)

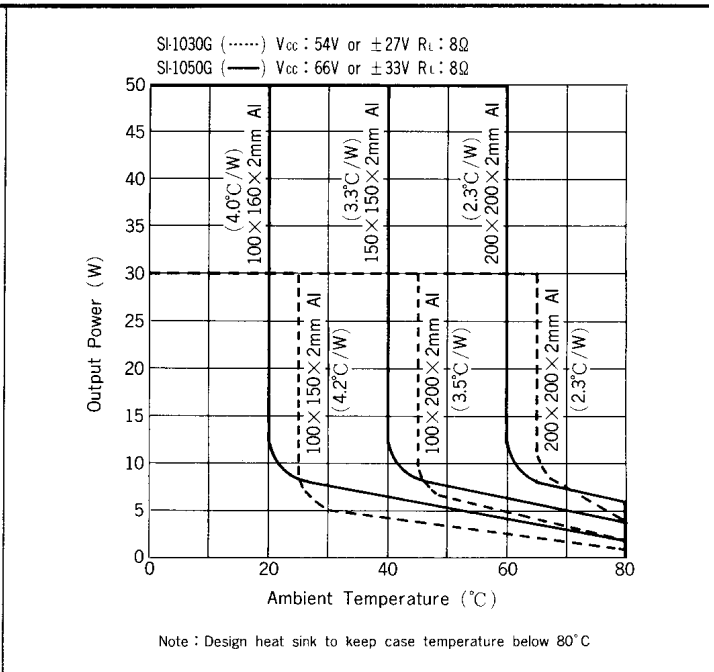
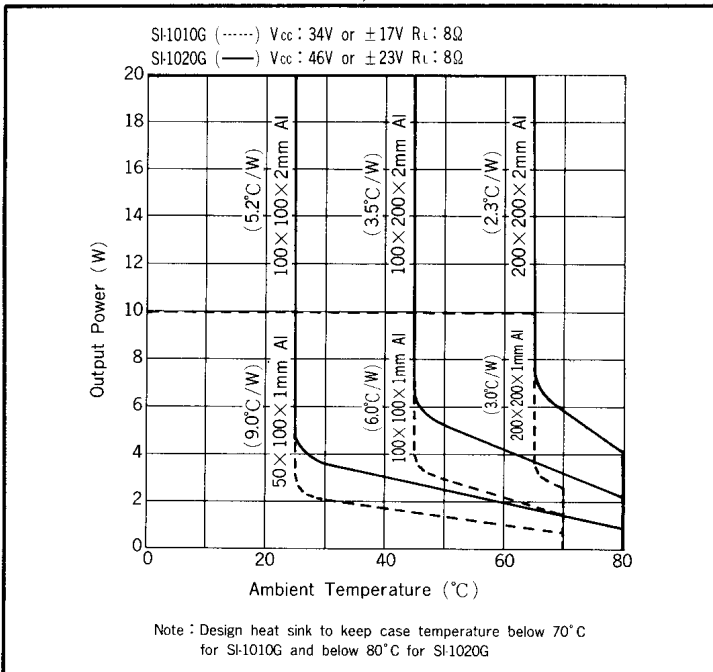
(SI-1030G & SI-1050G)



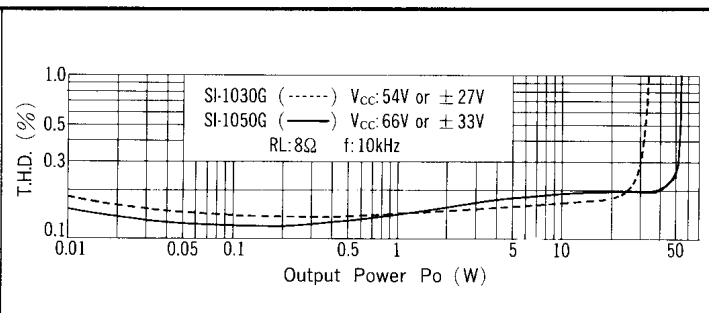
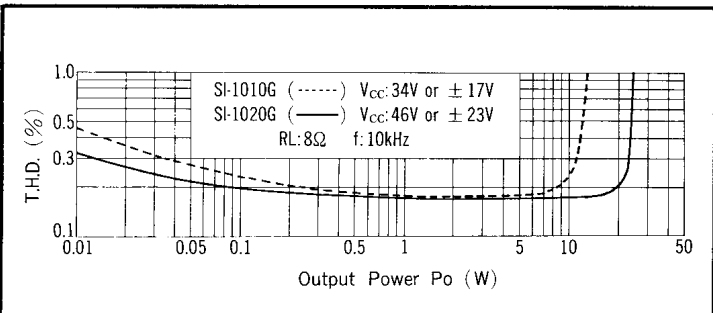
POWER DERATING

(SI-1010G & SI-1020G)

(SI-1030G & SI-1050G)



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