

SI-1125HD

Absolute Maximum Rating ($T_A=25^\circ\text{C}$)

Characteristics	Rating	Conditions
Supply Voltage (V) V_{CC}	± 35	
Operating Temperature ($^\circ\text{C}$) T_{OP}	$-30 \sim 100$	Heat Sink Temperature
Storage Temperature ($^\circ\text{C}$) T_{STG}	$-30 \sim 120$	
Allowable Output Short Time (sec) t_s	2.0	$V_{CC} = \pm 35\text{V}$, $P_o = 25\text{W}$, $f = 1\text{kHz}$, Specified Power Supply
Junction Temperature ($^\circ\text{C}$) T_j	150	Junction Temperature of Power Transistor
Thermal Resistance ($^\circ\text{C}/\text{W}$) θ_j	3.3 max.	Between Junction of Power Transistor and Heat Sink

25W Dual channel Amp with tone control circuit installable in feedback circuit.



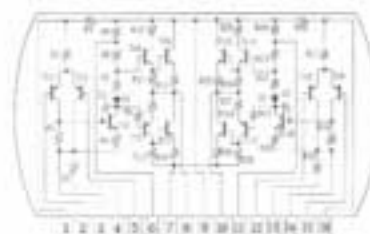
Electrical Characteristics $8\ \Omega$ (4 Ω) Load (per channel) $T_A=25^\circ\text{C}$

Characteristics	Rating			Conditions
	Min.	Typ.	Max.	
Supply Voltage (V) V_{CC}	± 25 (± 22.5)			
Supply Current (A) I_{CC}	0.8 (1.15)			
Output Power (W) P_o	25			1kHz, T.H.D. = 0.2%
Power Band Width (Hz) PBW	10-20 k			T.H.D. = 0.2%, -1dB
Frequency Response (Hz) f	10-100k			$P_o = 1\text{W}$, -1dB
Voltage Gain (dB) G_v	40			$R_1 = R_2 = 56\text{k}\Omega$ $R_3 = 560\Omega$
Input Impedance ($\text{k}\Omega$) Z_{in}	56			$R_1 = R_3 = 56\text{k}\Omega$
Idling Current (mA) I_e	30	50	80	$V_{CC} = \pm 32\text{V}$
Output Noise Voltage (mV) V_N	1.0 2.0			$R_4 = 10\text{k}\Omega$, Specified Power Supply
Output Quiescent Point Voltage (mV) V_o	± 100			$V_{CC} = \pm 20\text{V} \sim \pm 35\text{V}$

OUTLINE DRAWINGS in mm

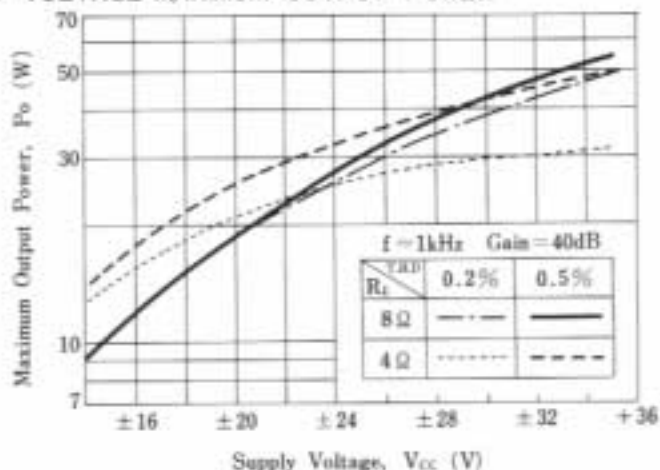


SCHEMATIC

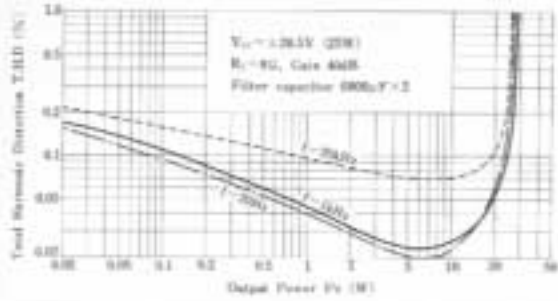


- 1.16. Ripple Filter Capacitor (+)
- 2.15. Input Capacitor (-)
- 3.14. Ripple Filter Capacitor (-)
- 4.13. Power Supply ($-V_{EE}$)
- 5.12. Feedback Resistor
- 6.11. Bootstrap Capacitor (+)
7. Power Supply ($-V_{EE}$)
8. CH-2 Output
9. Power Supply ($+V_{CC}$)
10. CH-1 Output

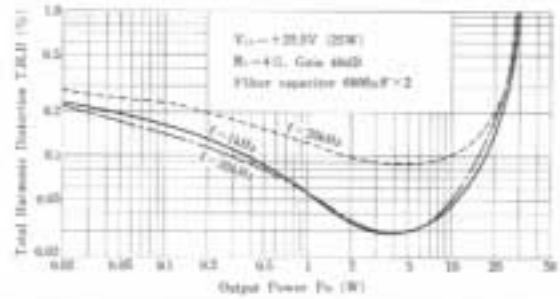
SUPPLY VOLTAGE-MAXIMUM OUTPUT POWER



HARMONIC DISTORTION ($R_L=8\Omega$)



HARMONIC DISTORTION ($R_L=4\Omega$)



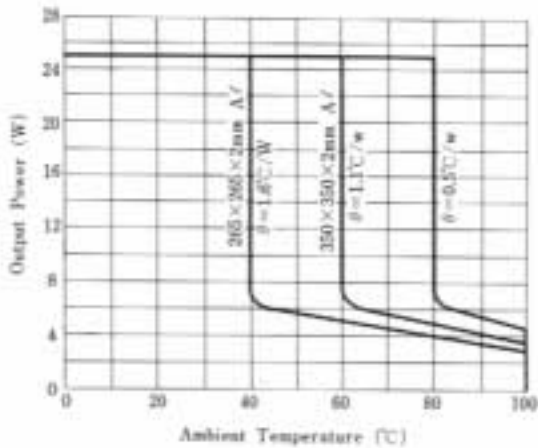
POWER BANDWIDTH (THD=0.5%)



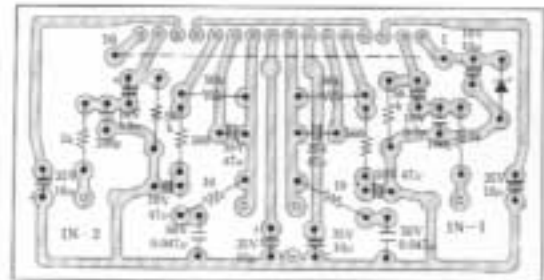
POWER BANDWIDTH (THD=0.2%)



POWER DERATING



PC BOARD EXAMPLE



RECOMMENDED CONNECTIONS

