Ordering number: EN 2237B

Monolithic Linear IC

SANYO | No. 2237B | **LA4275**

6.0 W AF Power Amplifier for Home Stereo, TV Use

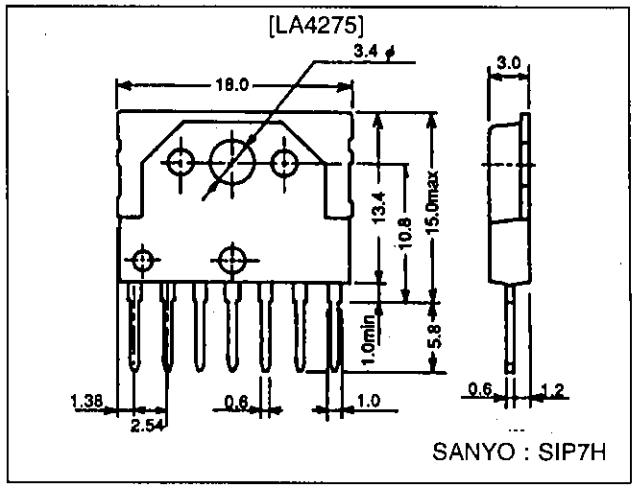
Features

- Small-sized package of 7-pin SIP
- High power and low distortion
  P_O = 6.0 W at V_{CC} = 25 V, R_L = 8 Ω,
  f = 1 kHz, THD = 1.0%
  THD = 0.1% at V_{CC} = 25 V, R_L = 8 Ω,
  f = 1 kHz, P_O = 2 W
- Minimum number of external parts required (no bootstrap capacitor required)
- Low pop noise at the time of power switch ON/OFF
- Excellent ripple rejection (55 dB typ.)
- Wide operating voltage range (10 V to 32 V)
- Protector against abnormalities built in (thermal shutdown, overvoltage)

Package Dimensions

unit : mm

3075-SIP7H



Specifications

Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	V_{CC} max	Quiescent	35	V
Maximum output current	I_O peak		3.5	A
Allowable power dissipation	Pd max	With heat sink	10	W
Operating temperature	Topr		–20 to +75	°C
Storage temperature	Tstg		–40 to +150	°C

Operating Conditions at Ta = 25°C

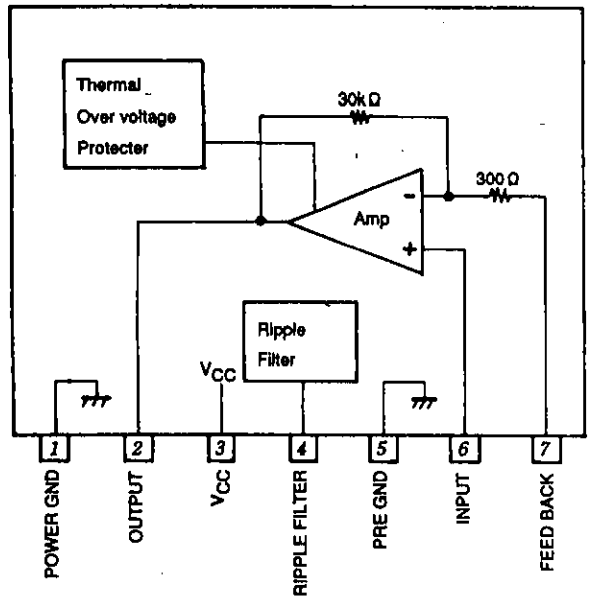
Parameter	Symbol	Conditions	Ratings	Unit
Recommended supply voltage	V_{CC}		25	V
Operating voltage range	V_{CC} op		10 to 32	V
Recommended load resistance	R_L		8 to 16	Ω

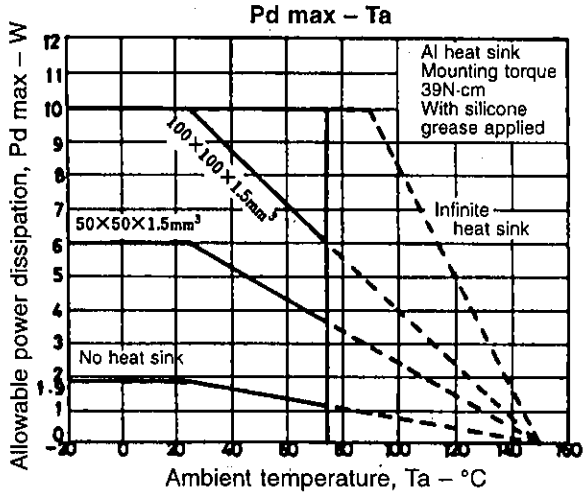
Operating Characteristics at Ta = 25°C, V_{CC} = 25 V, R_L = 8 Ω, f = 1 kHz, Rg = 600 Ω, See specified Test Circuit.

Parameter	Symbol	Conditions	min	typ	max	Unit
Quiescent current	I_{CCO}	Quiescent		30	60	mA
Voltage gain	VG		38	40	42	dB
Output power	P_O	THD = 1%	5.0	6.0		W
Total harmonic distortion	THD	P_O = 2 W		0.1	0.8	%
Output noise voltage	V_{NO}	Rg = 10 kΩ, BW = 20 Hz to 20 kHz		0.25	1.0	mV
Ripple rejection	SVRR	Rg = 10 kΩ, f_R = 100 Hz, V_R = 0 dBm	45	55		dB

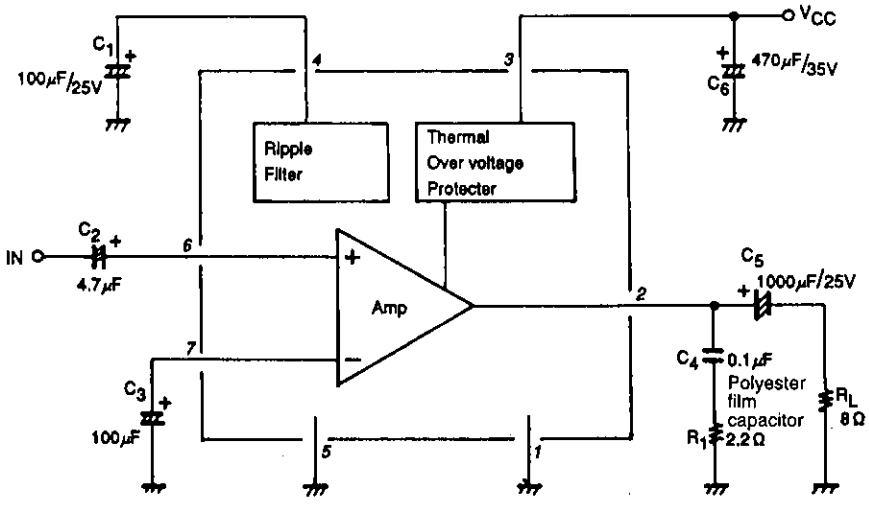
SANYO Electric Co.,Ltd. Semiconductor Business Headquarters
TOKYO OFFICE Tokyo Bldg.,1-10,1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

Equivalent Circuit Block Diagram and Pin Assignment





Sample Application Circuit (Test Circuit)



- No products described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster/crime-prevention equipment and the like, the failure of which may directly or indirectly cause injury, death or property loss.
- Anyone purchasing any products described or contained herein for an above-mentioned use shall:
  ① Accept full responsibility and indemnify and defend SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors and all their officers and employees, jointly and severally, against any and all claims and litigation and all damages, cost and expenses associated with such use:
  ② Not impose any responsibility for any fault or negligence which may be cited in any such claim or litigation on SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors or any of their officers and employees jointly or severally.
- Information (including circuit diagrams and circuit parameters) herein is for example only; it is not guaranteed for volume production. SANYO believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.

This catalog provides information as of October, 1996. Specifications and information herein are subject to change without notice.