SGS-THOMSON MICROELECTRONICS

L2726

LOW DROP DUAL POWER OPERATIONAL AMPLIFIER

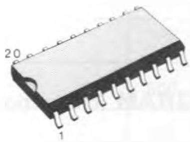
ADVANCE DATA

- OUTPUT CURRENT TO 1A
- OPERATES AT LOW VOLTAGES
- SINGLE OR SPLIT SUPPLY
- LARGE COMMON-MODE AND DIFFERENTIAL MODE RANGE
- LOW INPUT OFFSET VOLTAGE
- GROUND COMPATIBLE INPUTS
- LOW SATURATION VOLTAGE
- THERMAL SHUTDOWN
- CLAMP DIODE

The L2726 is a monolithic integrated circuit in SO-20 package intended for use as power operational amplifiers in a wide range of applications including servo amplifiers and power supplies.

It is particularly indicated for driving inductive loads, as motor and finds applications in compact-disc VCR automotive, etc.

The high gain and high output power capability provide superior performance whatever an operational amplifier/power booster combination is required.



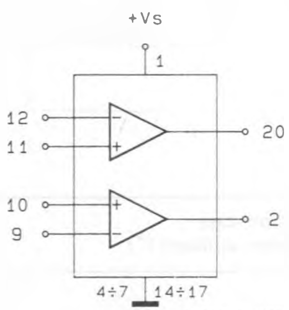
SO-20
(12 + 4 + 4)

ORDER NUMBER: L2726

ABSOLUTE MAXIMUM RATINGS

V_s	Supply voltage	28	V
V_s	Peak supply voltage (50ms)	50	V
V_i	Input voltage	V_s	
V_i	Differential input voltage	$\pm V_s$	
I_o	DC output current	1	A
I_p	Peak output current (non repetitive)	1.5	A
P_{tot}	Power dissipation at $T_{amb} = 85°C$	1	W
	$T_{case} = 75°C$	5	W
T_{stg}, T_j	Storage and junction temperature	-40 to 150	°C

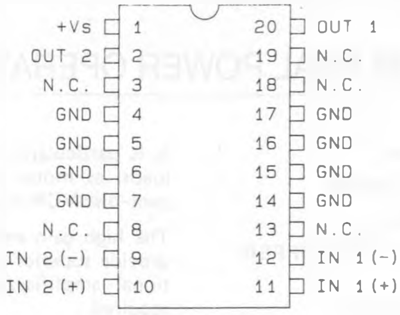
BLOCK DIAGRAM



L2726-1::DIS

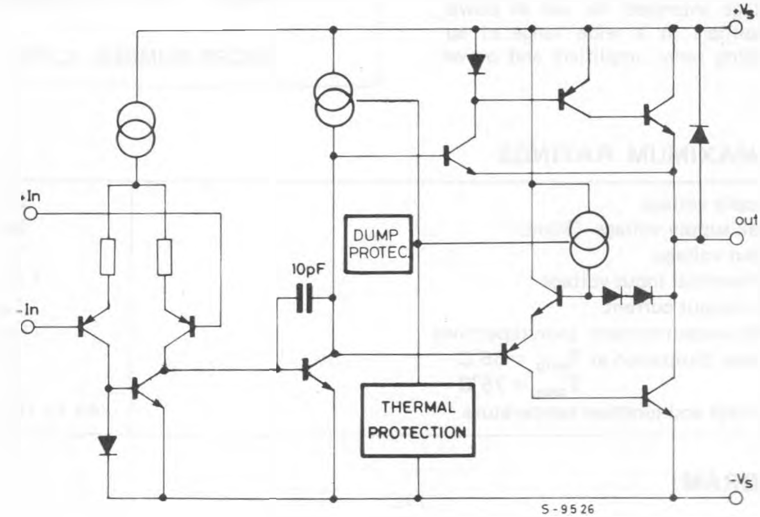
This is advanced information on a new product now in development or undergoing evaluation. Details are subject to change without notice.

CONNECTION DIAGRAM
(Top view)



L2726-2::DIS

SCHEMATIC DIAGRAM (one section)



S-9526

THERMAL DATA

$R_{th\ j\text{-}case}$	Thermal resistance junction-case	max	15.0	°C/W
$R_{th\ j\text{-}amb}$	Thermal resistance junction-ambient (*)	max	65	°C/W

(*) With 4 sq. cm copper area heatsink

ELECTRICAL CHARACTERISTICS ($V_s = 24V$, $T_{amb} = 25°C$ unless otherwise specified)

	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_s	Single supply voltage			4		28	V
V_s	Split supply voltage			± 2		± 14	V
I_s	Quiescent drain current	$V_o = \frac{V_s}{2}$	$V_s = 24V$		10	15	mA
			$V_s = 8V$		9	15	mA
I_b	Input bias current				0.2	1	μA
V_{os}	Input offset voltage					10	mV
I_{os}	Input offset current					100	nA
SR	Slew rate				2		V/μs
B	Gain-bandwidth product				1.2		MHz
R_i	Input resistance			500			KΩ
G_v	O.L. voltage gain	f = 100Hz		70	80		dB
		f = 1KHz			60		dB
e_N	Input noise voltage	B = 22Hz to 22KHz			10		μV
I_N	Input noise current	B = 22Hz to 22KHz			200		pA
CMR	Common Mode rejection	f = 1KHz		66	84		dB
SVR	Supply voltage rejection	f = 100Hz R_G = 10KΩ V_R = 0.5V	$V_s = 24V$ $V_s = \pm 12V$ $V_s = \pm 6V$	60	70 75 80		dB dB dB
$V_{DROP\ (HIGH)}$		$V_s = \pm 2.5V$ to $\pm 12V$	$I_p = 100mA$		0.7		V
			$I_p = 500mA$		1.0	1.5	V
$V_{DROP\ (LOW)}$		$V_s = \pm 2.5V$ to $\pm 12V$	$I_p = 100mA$		0.3		V
			$I_p = 500mA$		0.5	1.0	V
C_s	Channel separation	f = 1KHz R_L = 10Ω G_v = 30dB	$V_s = 24V$		60		dB
			$V_s = 6V$		60		dB
T_{sd}	Thermal shutdown junction temperature				145		°C

Fig. 1 - Quiescent current vs. supply voltage

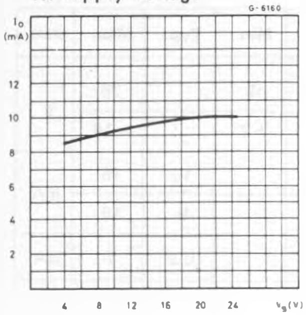


Fig. 2 - Open loop gain vs. frequency

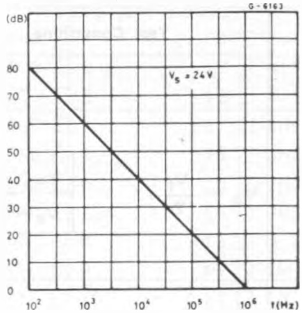


Fig. 3 - Common mode rejection vs. frequency

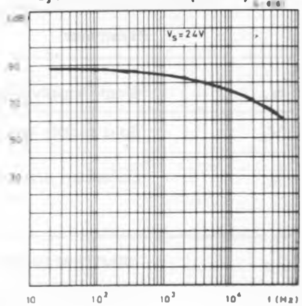


Fig. 4 - Output swing vs. load current (V_s = ± 5V)

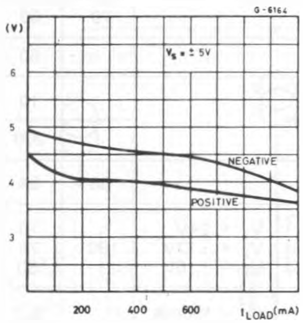


Fig. 5 - Output swing vs load current (V_s = ± 12V)

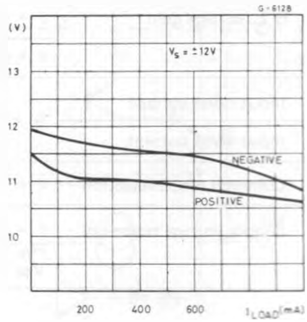


Fig. 6 - Supply voltage rejection vs. frequency

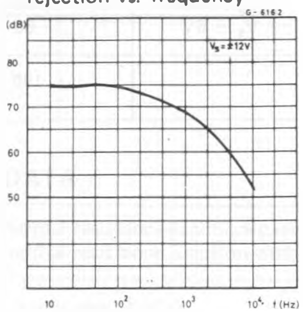


Fig. 7 - Channel separation vs. frequency