



LOW DROP DUAL POWER OPERATIONAL AMPLIFIER

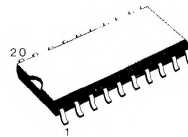
ADVANCE DATA

- 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.



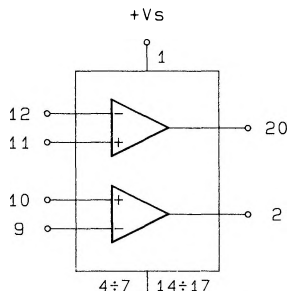
SO-20
(12 + 4 + 4)

ORDER NUMBER: L2726

ABSOLUTE MAXIMUM RATINGS

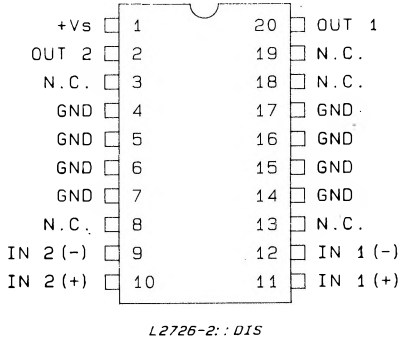
V_s	Supply voltage	28	V
V_s	Peak supply voltage (50ms)	50	V
V_i	Input voltage	V_s	
V_i	Differential input voltage	$\pm V_s$	
I_o	DC output current	1	A
I_p	Peak output current (non repetitive)	1.5	A
P_{tot}	Power dissipation at $T_{amb} = 85^\circ\text{C}$ $T_{case} = 75^\circ\text{C}$	1	W
		5	W
T_{stg},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

BLOCK DIAGRAM

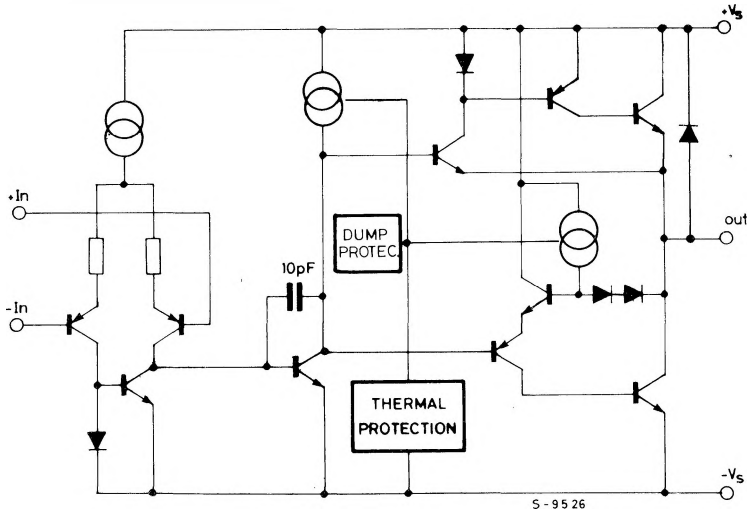


L2726-1: : DIS

CONNECTION DIAGRAM
(Top view)



SCHEMATIC DIAGRAM (one section)



THERMAL DATA

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

(*) With 4 sq. cm copper area heatsink

ELECTRICAL CHARACTERISTICS ($V_s = 24V$, $T_{amb} = 25^{\circ}C$ 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	
I_s Quiescent drain current	$V_o = \frac{V_s}{2}$	$V_s = 24V$		10	15	mA
		$V_s = 8V$		9	15	
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			K Ω
G_v O.L. voltage gain	$f = 100Hz$		70	80		dB
	$f = 1KHz$			60		
e_N Input noise voltage	$B = 22Hz \text{ to } 22KHz$			10		μV
I_N Input noise current				200		pA
CMR Common Mode rejection	$f = 1KHz$		66	84		dB
SVR Supply voltage rejection	$f = 100Hz$ $R_G = 10K\Omega$ $V_R = 0.5V$	$V_s = 24V$ $V_s = \pm 12V$ $V_s = \pm 6V$	60	70 75 80		dB dB dB
$V_{DROP (HIGH)}$	$V_s = \pm 2.5V \text{ to } \pm 12V$	$I_p = 100mA$		0.7		V
		$I_p = 500mA$		1.0	1.5	
$V_{DROP (LOW)}$		$I_p = 100mA$		0.3		V
		$I_p = 500mA$		0.5	1.0	
C_s Channel separation	$f = 1KHz$ $R_L = 10\Omega$ $G_v = 30dB$	$V_s = 24V$		60		dB
		$V_s = 6V$		60		
T_{sd} Thermal shutdown junction temperature				145		$^{\circ}C$

Fig. 1 - Quiescent current vs. supply voltage

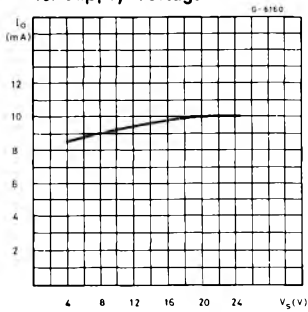


Fig. 2 - Open loop gain vs. frequency

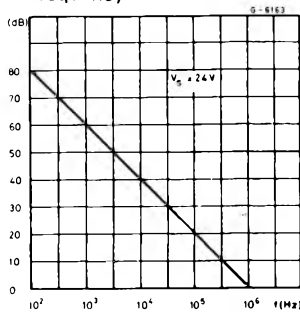


Fig. 3 - Common mode rejection vs. frequency

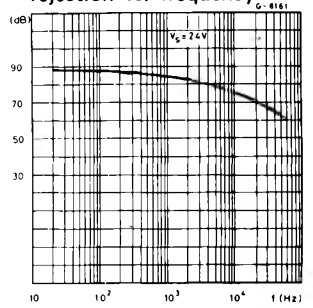


Fig. 4 - Output swing vs. load current ($V_S = \pm 5V$)

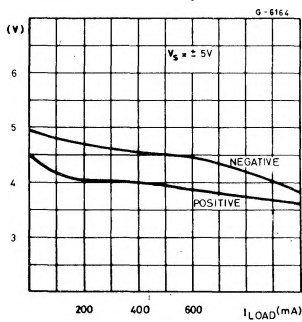


Fig. 5 - Output swing vs. load current ($V_S = \pm 12V$)

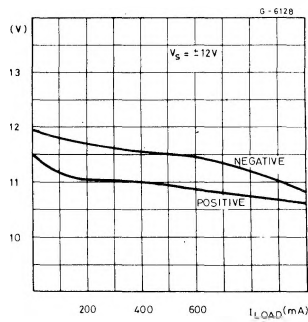


Fig. 6 - Supply voltage rejection vs. frequency

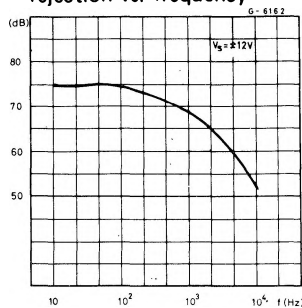


Fig. 7 - Channel separation vs. frequency

