

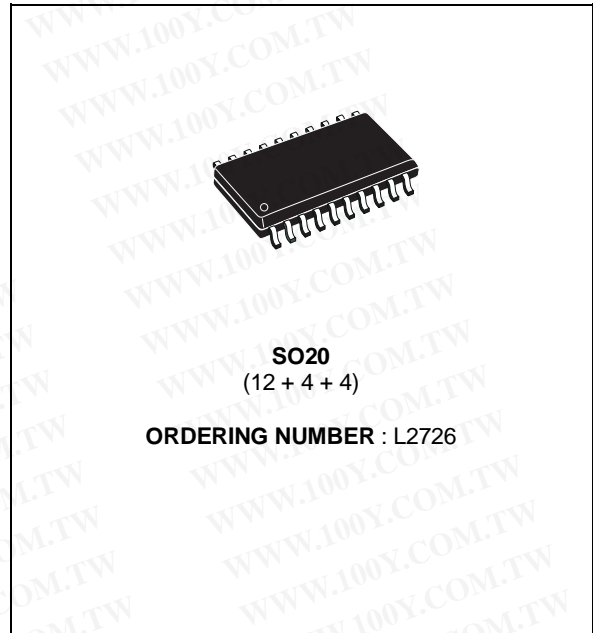


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L2726

LOW DROP DUAL POWER OPERATIONAL AMPLIFIER

- OUTPUT CURRENT TO 1 A
- 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



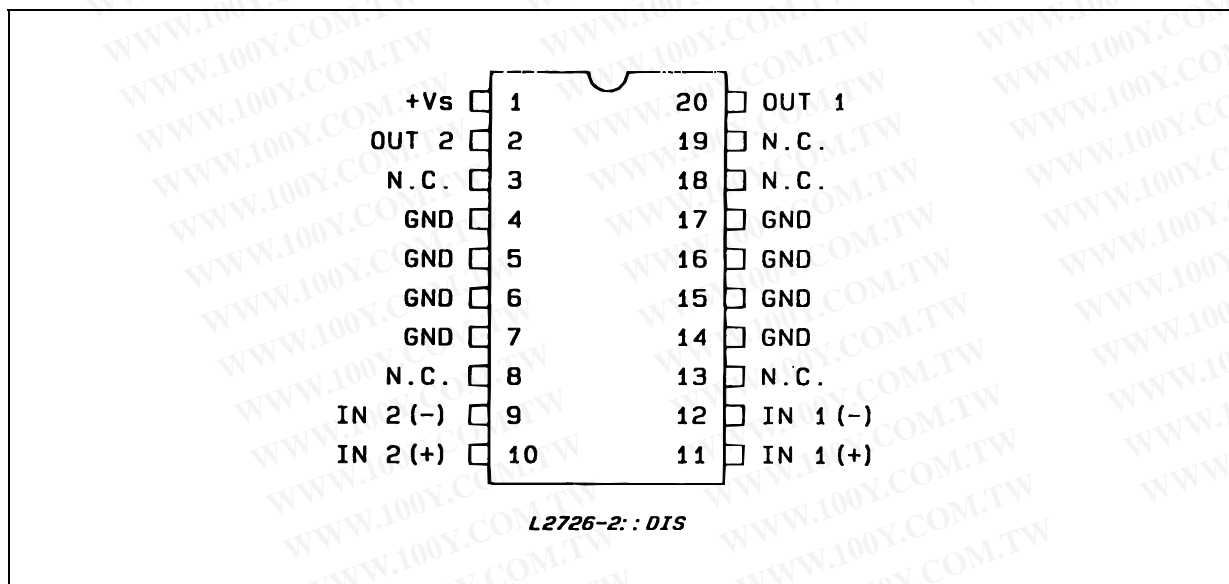
DESCRIPTION

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.

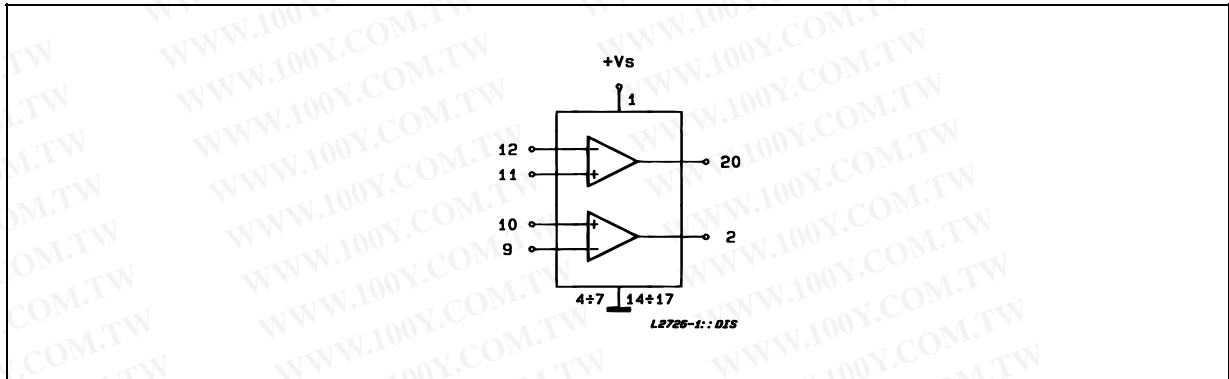
It is particularly indicated for driving inductive loads, as motor and finds applications in compact-disc VCR automotive, etc.

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

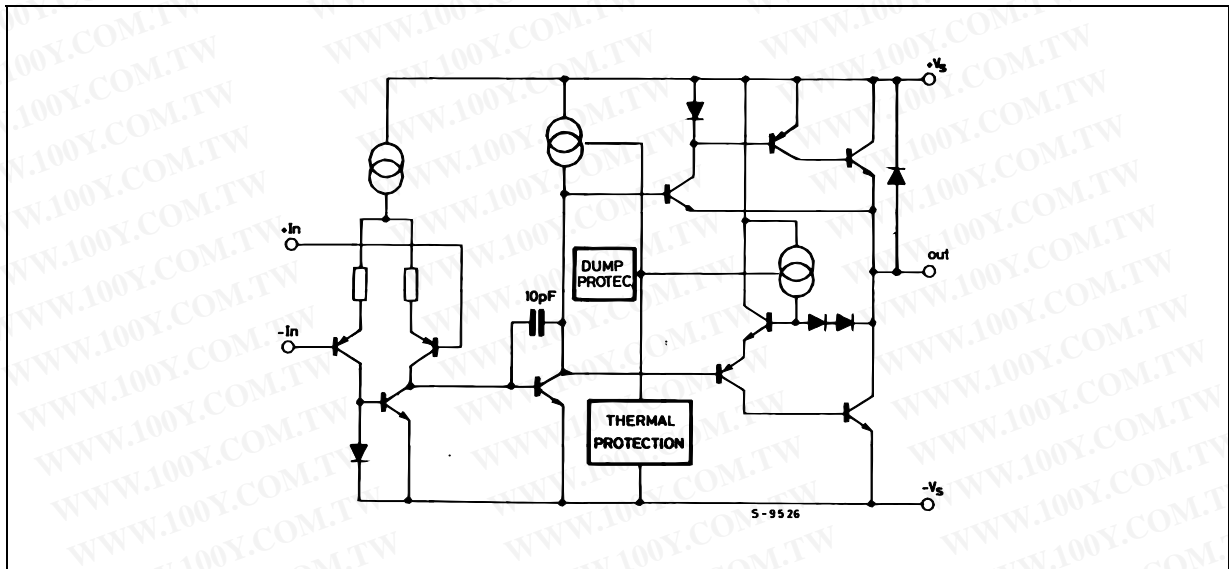
PIN CONNECTION (top view)



BLOCK DIAGRAM



SCHEMATIC DIAGRAM (one section)



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit	
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 5	W
T_{op}	Operating Temperature	- 40 to 85	$^\circ\text{C}$	
T_{stg}, T_j	Storage and Junction Temperature	- 40 to 150	$^\circ\text{C}$	

THERMAL DATA

$R_{th\ j-case}$	Thermal Resistance Junction-case	Max.	15.0	$^\circ\text{C/W}$
$R_{th\ j-amb}$	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

Symbol	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	$V_o = \frac{V_s}{2}$ $V_s = 24V$ $V_s = 24V$		10 9	15 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			k Ω
G_v	O. L. Voltage Gain	$f = 100Hz$ $f = 1kHz$	70	80 60		dB
e_N	Input Noise Voltage	B = 22Hz to 22kHz		10		μV
I_N	Input Noise Voltage			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
$V_{DROPHIGH}$		$V_s = \pm 2.5V$ to $\pm 12V$ $I_p = 100mA$ $I_p = 500mA$		0.7 1	1.5	V
$V_{DROPLow}$		$V_s = \pm 2.5V$ to $\pm 12V$ $I_p = 100mA$ $I_p = 500mA$		0.3 0.5	1	V
C_s	Channel Separation	$f = 1KHz$ $R_L = 10\Omega$ $G_v = 30dB$ $V_s = 24V$ $V_s = 6V$		60 60		dB
T_{sd}	Thermal Shutdown Junction Temperature		150			$^\circ C$

Figure 1 : Quiescent Current vs. Supply Voltage

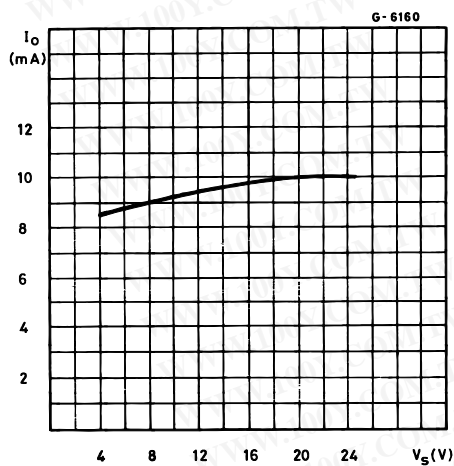


Figure 2 : Open Loop Gain vs. Frequency

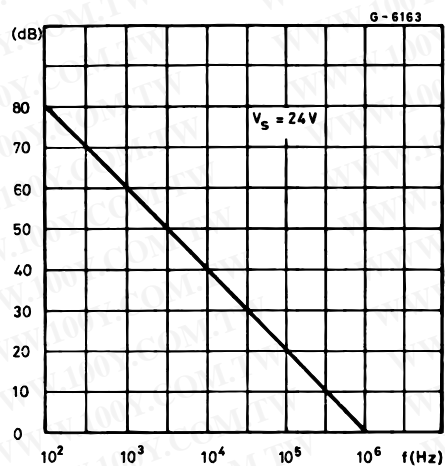


Figure 3 : Common Mode Rejection Frequency

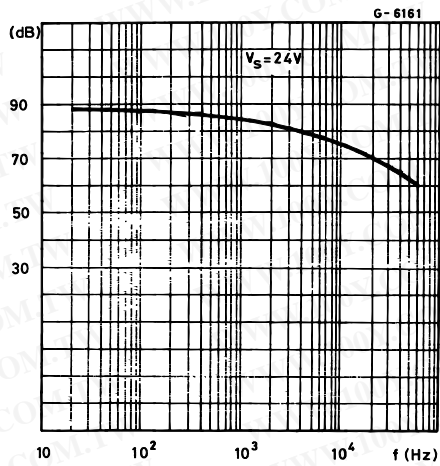


Figure 4 : Output Swing vs. Load Current ($V_S = \pm 5V$)

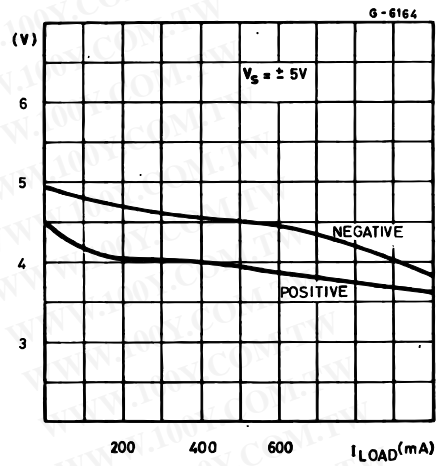


Figure 5 : Output Swing vs. Load Current ($V_S = \pm 12V$)

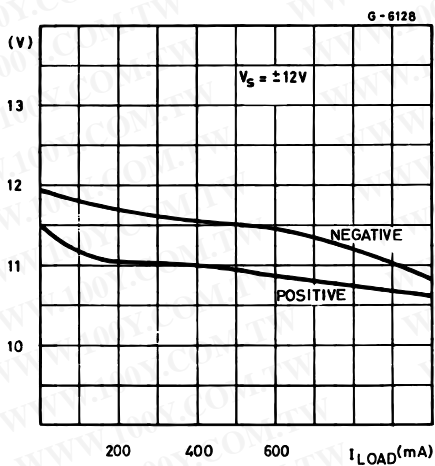


Figure 6 : Supply Voltage Rejection vs. Frequency

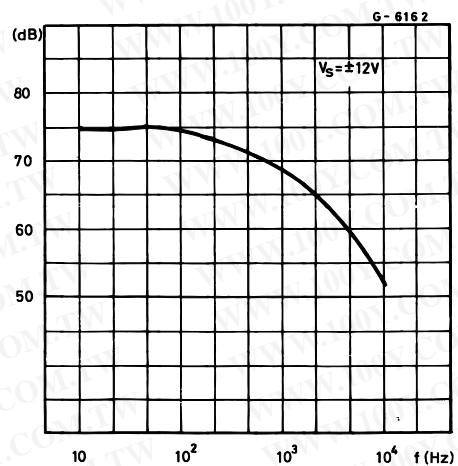
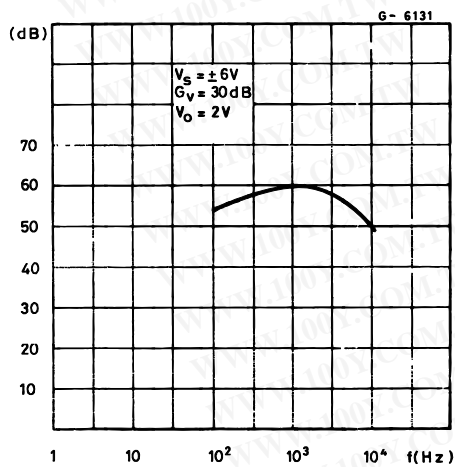
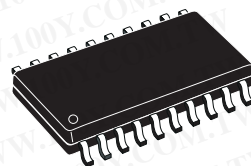


Figure 7 : Channel Separation vs. Frequency.

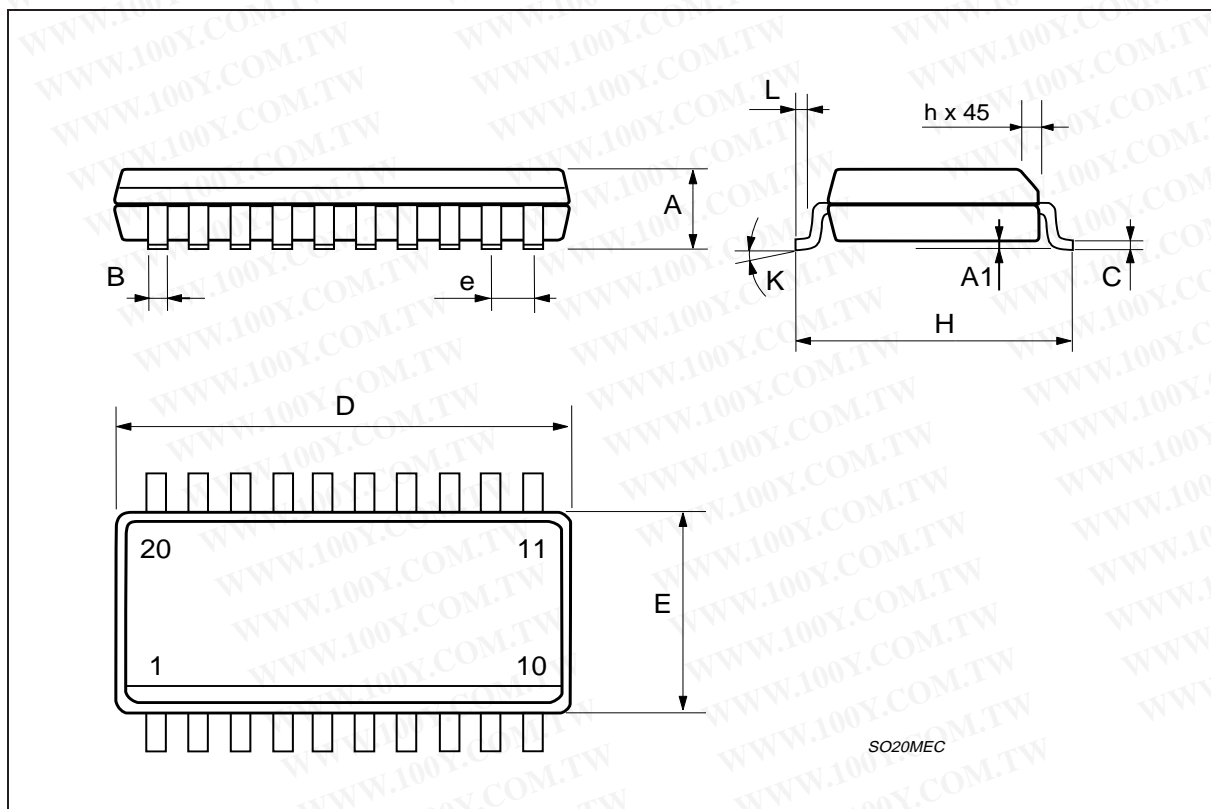


DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	2.35		2.65	0.093		0.104
A1	0.1		0.3	0.004		0.012
B	0.33		0.51	0.013		0.020
C	0.23		0.32	0.009		0.013
D	12.6		13	0.496		0.512
E	7.4		7.6	0.291		0.299
e		1.27			0.050	
H	10		10.65	0.394		0.419
h	0.25		0.75	0.010		0.030
L	0.4		1.27	0.016		0.050
K	0° (min.)8° (max.)					

OUTLINE AND MECHANICAL DATA



SO20



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