

GENERAL DESCRIPTION

The 9728 is a driver featuring high speed suited for driving high speed high power PIN diode switches.

1) Inputs are complementary and are nominally in the range of 0.4 to 5V. Input impedance to ground from either input is 1K minimum over the common-mode range of -10V to +10V.

A is inverting and Output B is noninverting.

Positive output currents are +70 mA nominal into +.87V loads. Negative outputs are capable of sinking 10mA (with external current limiting).

The Status output reports the operational status of the driver. It is a bilevel discrete signal with the following characteristics:

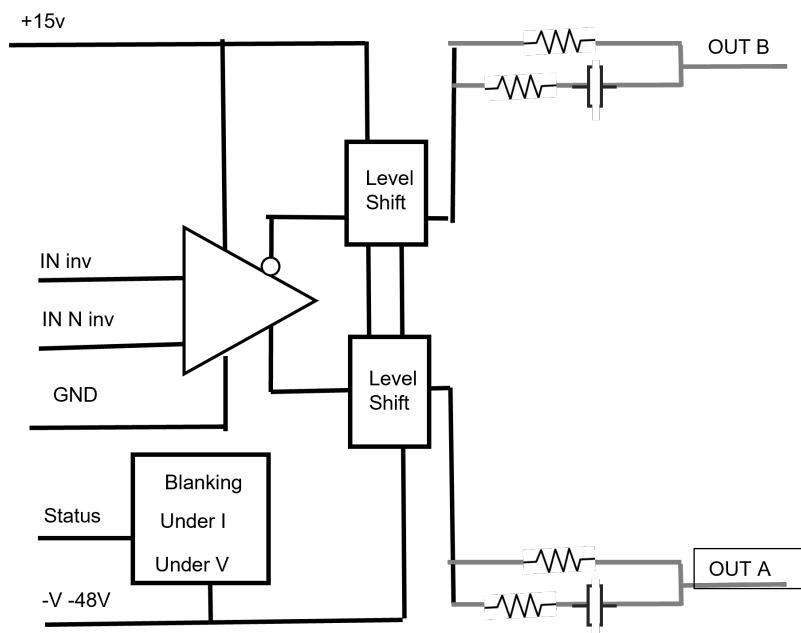
Fault Status: Open Circuit >75K ohms

Fault Conditions: If positive current is less than 30% of nominal currents for A and B

If negative voltage is less negative than -30V, or not present.

Fault Blanking: Fault Status reporting shall be blanked by 2 microseconds nominal delay following switching.

FUNCTION BLOCK DIAGRAM

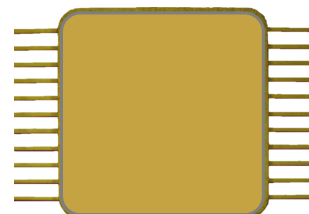


MECHANICAL

The 9728 is sealed in a glass to metal .625" x .625" package.

ECCN Code EAR99

9728 is RoHS 3 (EU 2015/863) compliant.



PIN CONNECTIONS

Recommend bypassing Vpos and Vneg with .1 uf capacitor minimum.

- | | |
|----|----------|
| 1 | +V |
| 2 | IN(-) |
| 3 | IN(+) |
| 4 | NC |
| 5 | NC |
| 6 | Ground |
| 7 | Ground |
| 8 | Ground |
| 9 | Status |
| 10 | NC |
| 11 | -48V |
| 12 | NC |
| 13 | Output A |
| 14 | NC |
| 15 | NC |
| 16 | NC |
| 17 | NC |
| 18 | NC |
| 19 | NC |
| 20 | NC |
| 21 | Output B |
| 22 | NC |

TRUTH TABLE

IN-	IN+	OUT A	OUT B
0	1	+V	-V
1	0	-V	+V

ELECTRICAL SPECIFICATIONS

Vpos +15V, Vneg -48V, TEMP 25C, PRR 25KHz

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
ABSOLUTE MAXIMUMS						
Vpos	Supply Voltage Positive				16.5	V
Vneg	Supply Voltage Negative		-75			V
ENVIRONMENTAL						
To	Operating Temperature		-55		+125	Deg C
Ts	Storage Temperature		-55		150	Deg C
INPUT						
VI_hi	Voltage Input High			5	10	V
VI_low	Voltage Input Low		-10	.4		V
OUTPUT						
VO_hi	Voltage Out High	open load	14.0	14.3	14.9	V
VO_low	Voltage Out Low	open load -V	-47.0	-47.3	-48	V
IO_hi	Current Out High	forward bias PIN diode		70		mA
IO_low	Current Out Low	PIN diode load back bias		-10		mA
lopk	Current Peak Output	sink and source	+/-300			mA
SUPPLY						
IQC_pos	Quiescent Current Positive				95	mA
IQC_neg	Quiescent Current Negative			-5		mA
DYNAMIC						
TSW_rise	Switching Speed On	1N4148 diode load		200		nS
TSW_fall	Switching Speed Off	1N4148 diode load		200		nS
PRR	Pulse Repetition Rate	Max, 10pF load		10		KHz

ESD Sensitivity HBM Class1B

DRAWING NOT TO SCALE. DIMENSIONS ARE IN INCHES, UNLESS OTHERWISE NOTED.

Length .645 in MAX; Width .645 in MAX; Height .135 in MAX

Date Code: YYWW

