

## DUAL SCHOTTKY DIODE BRIDGE

- MONOLITHIC ARRAY OF EIGHT SCHOTTKY DIODES
- HIGH EFFICIENCY
- 4A PEAK CURRENT
- LOW FORWARD VOLTAGE
- FAST RECOVERY TIME
- TWO SEPARATED DIODE BRIDGES

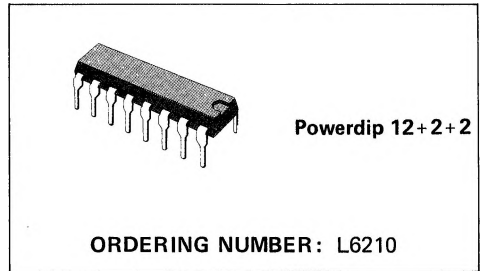
The L6210 is a monolithic IC containing eight Schottky diodes arranged as two separated diode bridges.

This diodes connection makes this device versatile in many applications.

They are used particular in bipolar stepper motor applications, where high efficient operation,

due to low forward voltage drop and fast reverse recovery time, are required.

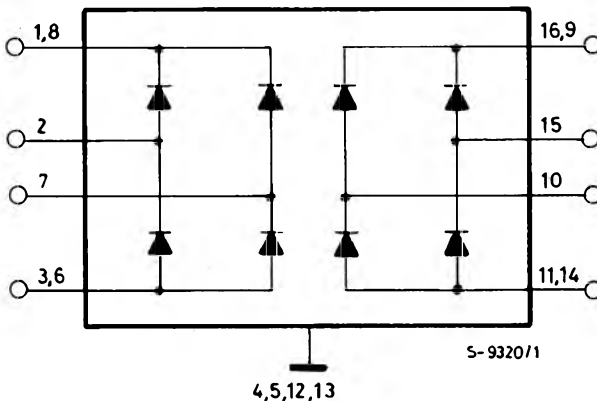
The L6210 is available in a 16 Pin Powerdip Package (12+2+2) designed for the 0 to 70°C ambient temperature range.



### ABSOLUTE MAXIMUM RATINGS

$I_f$	Repetitive forward current peak	2	A
$V_r$	Peak reverse voltage (per diode)	50	V
$T_{amb}$	Operating ambient temperature	70	°C
$T_{stg}$	Storage temperature range	-55 to 150	°C

### BLOCK DIAGRAM

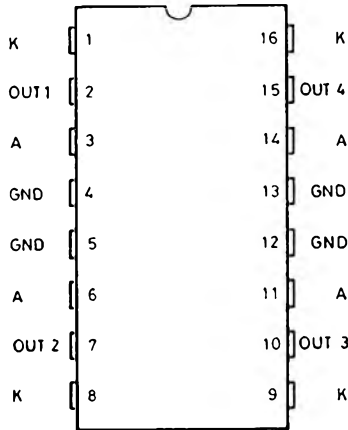


**THERMAL DATA**

$R_{th\ j-case}$	Thermal impedance junction-case	max	14	°C/W
$R_{th\ j-amb}$	Thermal impedance junction-ambient without external heatsink	max	65	°C/W

**CONNECTION DIAGRAM**

(Top view)



5-9321

**ELECTRICAL CHARACTERISTICS** ( $T_j = 25^\circ\text{C}$  unless otherwise specified)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
$V_f$ Forward voltage drop	$I_f = 100\text{mA}$		0.65	0.8	V
	$I_f = 500\text{mA}$		0.8	1	
	$I_f = 1\text{A}$		1	1.2	
$I_L$ Leakage current	$V_R = 40\text{V}$ $T_{amb} = 25^\circ\text{C}$			1	mA

NOTE: At forward currents of greater than 1A, a parasitic current of approximately 10 mA may be collected by adjacent diodes.

Fig. 1 - Reverse current vs. voltage

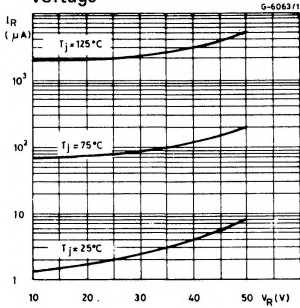
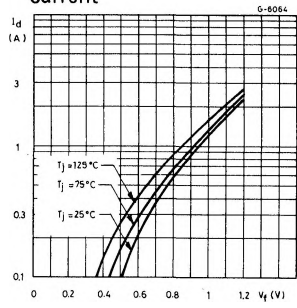


Fig. 2 - Forward voltage vs. current



**MOUNTING INSTRUCTIONS**

The  $R_{thj-amb}$  of the L6210 can be reduced by soldering the GND pins to a suitable copper area of the printed circuit board as shown in figure 3 or to an external heatsink (Figure 4).

During soldering the pin temperature must not exceed  $260^\circ C$  and the soldering time must not be longer than 12s. The external heatsink or printed circuit copper area must be connected to electrical ground.

Fig. 3 - Example of P.C. board copper area which is used as heatsink

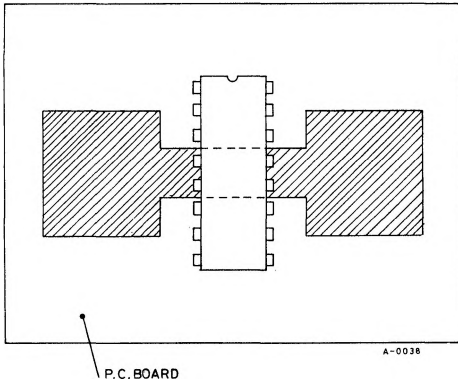


Fig. 4 - Example of an external heatsink

