

DESCRIPTION

The LP series of miniature Reed Relays offers the ideal solution for high density, high frequency switching. With a coaxial shield the LP series is capable of switching signals up to 1 GHz. Using only high reliability Reed Switches, one is insured of long life when switching low level signals.



CHARACTERISTICS

- Sealed with epoxy resin
- Magnetic shield
- High reliability
- Very small housing

FEATURES

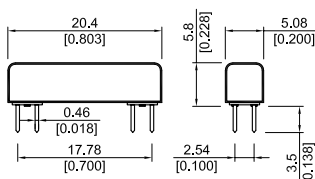
- Versions with 1 Form A or 1 Form C available
- Electrostatic and coaxial shield options
- High power switching up to 50 Watts

APPLICATIONS

- RF communications
- Video switching
- ATE

DIMENSIONS

All dimensions in mm [inches]



ORDER INFORMATION

Part Number Example

LP12 - 1A66 - 80V

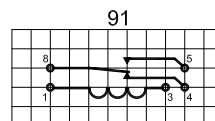
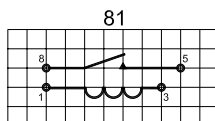
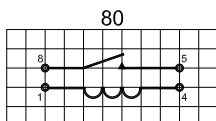
12 is the nominal voltage
1A is the contact form
66 is the switch model
80 is the pin out
V is the option

RELAY SERIES	NOMINAL VOLTAGE	CONTACT FORM	SWITCH MODEL	PIN OUT	OPTION
LP	XX -	XX	XX -	XX	X
OPTIONS	05, 12	1A	31, 66	80, 81	U, V, W
		1C	90	91	

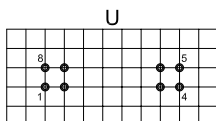
Miniature Reed Relays for High Frequency Switching

PIN OUT

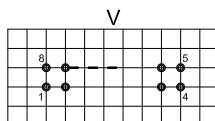
View from top of component
2.54mm [0.10"] pitch grid



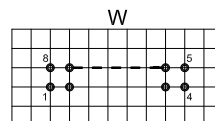
OPTIONS



NO OPTION



ELECTROSTATIC SHIELD



COAXIAL SHIELD

COIL DATA

CONTACT FORM	SWITCH MODEL	COIL VOLTAGE		COIL RESISTANCE			PULL-IN VOLTAGE		DROP-OUT VOLTAGE		NOMINAL COIL POWER
All data at 20 °C *		VDC		Ω			VDC		VDC		mW
		Nom.	Max.	Min.	Typ.	Max.	Min.	Max.	Min.	Max.	Typ.
1A	31	5	7.5	90	100	110	0.85	3.5	0.75	3.4	250
		12	16	450	500	550	1.9	8.4	1.8	8.3	290
	66	5	7.5	270	300	330	0.85	3.5	0.75	3.4	85
		12	16	900	1000	1100	1.9	8.4	1.8	8.3	145
1C	90	5	7.5	180	200	220	0.85	3.5	0.75	3.4	125
		12	16	720	800	880	1.9	8.4	1.8	8.3	180

* The pull-in / drop-out voltages and coil resistance will change at the rate of 0.4% per °C.

RELAY DATA

All data at 20 °C	Switch Model → Contact Form →	Switch 31 Form A			Switch 66 Form A			Switch 90 Form C			
Contact Ratings	Conditions	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Switching Power	Any DC combination of V & A not to exceed their individual max.'s			50			10			3	W
Switching Voltage	DC or peak AC			1000			200			175	V
Switching Current	DC or peak AC			2.0			0.5			0.25	A
Carry Current	DC or peak AC			3.0			1.25			1.2	A
Static Contact Resistance	w/ 0.5V & 50mA			80			150			150	mΩ
Dynamic Contact Resistance	Measured w/ 0.5V & 50mA 1.5 ms after closure			150			200			250	mΩ
Insulation Resistance (100 Volts applied)	Across contacts Contact to coil	10 ¹⁰ 10 ¹²			10 ¹⁰ 10 ¹²			10 ⁹ 10 ¹²			Ω
Breakdown Voltage	Across contacts Contact to coil	1500 1500			225 1500			200 1500			VDC
Operate Time, incl. Bounce	Measured w/ 100% overdrive			1.2			0.5			0.7	ms
Release Time	Measured w/ no coil suppression			1.0			0.1			1.5	ms
Capacitance	Across contacts Contact to coil		0.2 2.5			0.2 2.5			1.0 2.5		pF
Life Expectancies											
Switching 5 Volts@ 10mA	DC only & <10 pF stray cap.		500			1000			100		10 ⁶ Cycles
For other load requirements please see our life test section located on page 151.											
Environmental Data											
Shock Resistance	1/2 sine wave duration 11ms			50			50			50	g
Vibration Resistance	From 10 - 2000 Hz			20			20			20	g
Ambient Temperature	10 °C/ minute max. allowable	-20		70	-20		70	-20		70	°C
Storage Temperature	10 °C/ minute max. allowable	-25		85	-25		85	-25		85	°C
Soldering Temperature	5 sec. dwell			260			260			260	°C