Miniature Reed Relays for High Frequency Switching

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.

FEATURES

- Versions with 1 Form A or 1 Form C available
- Electrostatic and coaxial shield options

CHARACTERISTICS

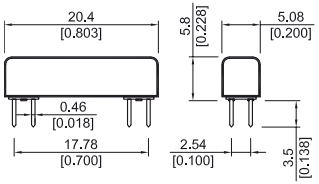
- Sealed with PU resin
- Magnetic shield
- High reliability
- Very small housing

APPLICATIONS

- RF communications
- Video switching
- ATE

DIMENSIONS

All dimensions in mm [inch]



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

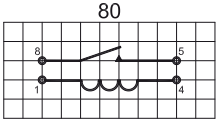
Relay Series	Nominal Voltage	Contact Form	Switch Model	Pin Out	Options
LP	XX -	XX	XX -	XX	X
Options	05, 12	1A	66	80	U, V, W
		1C	90	91	U

Miniature Reed Relays for High Frequency Switching

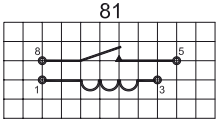
PIN OUT

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

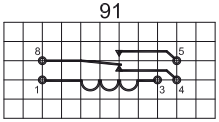
80



81

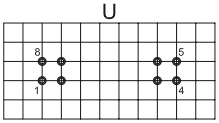


91



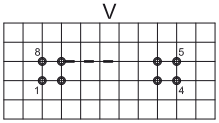
OPTIONS

U



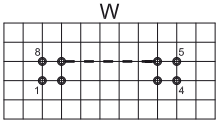
NO OPTION

V



ELECTROSTATIC SHIELD

W



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.	Max.	Min.	Typ.
1A	66	5	7.5		230		3.5	0.75	110
		12	16		950		8.4	1.8	155
1C	90	5	7.5		190		3.5	0.75	135
		12	16		770		8.4	1.8	190

* The pull-in / drop-out voltages and coil resistance will change at the rate 0,4% / °C

RELAY DATA

All Data at 20° C	Switch Model → Contact Form →	Switch 66 Form A			Switch 90 Form C			
Contact Ratings	**Conditions**	**Min.**	**Typ.**	**Max.**	**Min.**	**Typ.**	**Max.**	**Units**
Switching Power	Any DC combination of V & A not to exceed their individual max.'s			10			3	W
Switching Voltage	DC or peak AC			200			175	V
Switching Current	DC or peak AC			0.5			0.25	A
Carry Current	DC or peak AC			1.25			1.2	A
Static Contact Resistance	w/ 0.5 V & 10mA			150			150	mΩ
Dynamic Contact Resistance	Measured w/ 0.5 V & 50mA , 1.5 ms after closure			200			250	mΩ
Insulation Resistance across Contacts	Across Contact Coil - Contact	10^{10} 10^{10}			10^{9} 10^{10}			Ω
Breakdown Voltage across Contact	Across Contact Coil - Contact	200 800			200 800			VDC
Operation Time incl. Bounce	At nominal voltage			0.5			0.7	ms
Release Time	with no coil suppression			0.1			1.5	ms
Capacitance	Across Contact Coil - Contact		0.2 2.5			1.0 2.5		pF
Life Expectance								
Switch Voltage 5V - 10 mA	DC <10 pF stray cap.		1000			100		10^{6} Cycles
For other load requirements, see test section on Page 120.								
Environmental Data								
Shock Resistance	1/2 sinus wave duration 11 ms			50			50	g
Vibration Resistance	From 10 - 2000 Hz			20			20	g
Ambient Temperature	10°C/ minute max. allowable	-20		70	-20		70	°C
Stock Temperature	10°C/ minute max. allowable	-25		85	-25		85	°C
Soldering Temperature	5 sec.			260			260	°C

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Standex Electronics:

LP05-1C90-91V LP05-1A66-80V