

DESCRIPTION

The MRFL4 series is the smallest surface mount reed relay in the world. Designed to dramatically reduce board space requirements, the MRFL4 series uses less than 50mm² of PCB area. It was developed using new patent pending process that ensures long lasting (200 million operations at signal level) and reliable operation after undergoing the stress of IR reflow or vapor phase processes. The relays are available in standard lead configurations. J-bend or Gull Wing. They can also be ordered on tape and reel for automatic insertion equipment.

FEATURES

- Surface mount relay
- Gull or "J" lead available
- Patent pending design
- Compatible with IR & vapor phase soldering
- Low profile
- Low capacitance
- RoHS Compliant



APPLICATIONS

- IC testers
- Mixed signal testers
- High-frequency communication
- High bandpass feedback applications
- Telecom
- Security

SPECIFICATIONS

Parameters	Conditions	Min	Typ	Max	Units
Contact Ratings					
Switching Voltage	Max DC/Peak AC Resistive			100	Volts
Switching Current	Max DC/Peak AC Resistive			0.25	Amps
Carry Current	Max DC/Peak AC Resistive			0.5	Amps
Contact Rating	Max DC/Peak AC Resistive			3	Watts
Life Expectancy	Signal Level 1.0V, 10mA		250		x 10 ⁶ Ops
Static Contact Resistance	Rated Loads			150	x 10 ⁶ Ops
Dynamic Contact Resistance	50mV, 10mA			200	mOhms
Contact Material	0.5V, 50mA at 100Hz, 1.5msec		Ru		mOhms
Relay Specifications					
Insulation Resistance	Between all isolated pins at 100V, 25°C, 40%RH	10 ¹¹			Ohms
Capacitance Across Open Contacts	Coil Floating		0.2		pF
Open Contact to Coil Capacitance			1		pF
Dielectric Strength	Between Contacts	150			VDC/Peak AC
	Contacts to Shield	N/A			VDC/Peak AC
	Contacts to Coil	500			VDC/Peak AC
Operate Time, including bounce	At Nominal Coil Voltage		0.2		msec
	30Hz Square Wave				
Release Time	Zener-Diode Suppression		0.05		msec
Environmental Ratings					
Storage Temperature		-55		+100	°C
Operating Temperature		-40		+85	°C
Soldering Temperature ¹				+265	°C
Vibration Resistance	10Hz - 5Hz			20	Gs
	(Reed = 5Hz - 2000Hz)				
Shock Resistance	11 ± 1ms, 1/2 Sine Wave			50	Gs
Weight			0.7		grams

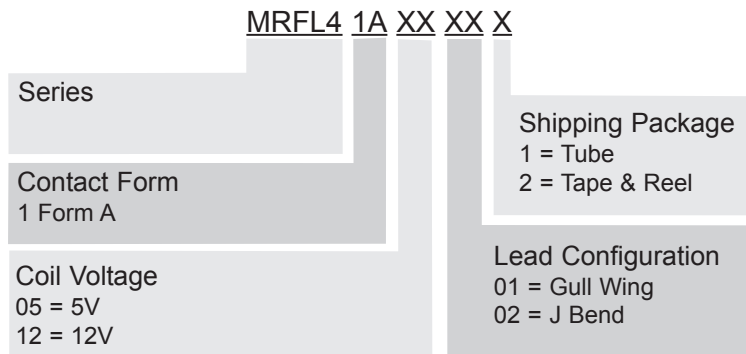


COIL SPECIFICATIONS

	Coil Voltage			Coil Resistance			Operate Voltage			Release Voltage		
Units	Volts			Ohms			Volts			Volts		
Conditions				+/- 10% (25°C)			Must operate by (25°C)			Must release by (25°C)		
Part #	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max
MRFL41A05XXX		5	7	157	175	193			3.75	0.4		
MRFL41A12XXX		12	18	450	500	550			9	1		

ORDERING INFORMATION

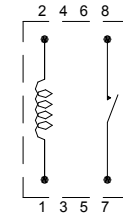
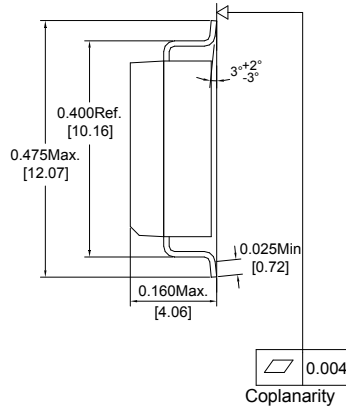
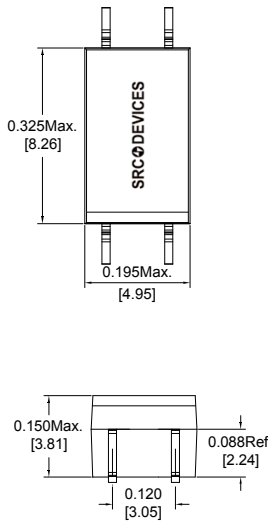
A complete part number is represented by the digits below



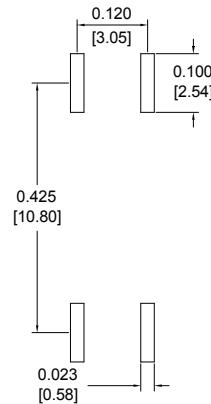
MECHANICAL DIMENSIONS

Dimensions in inches [mm]

Gull Wing

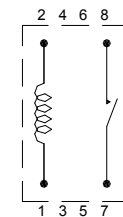
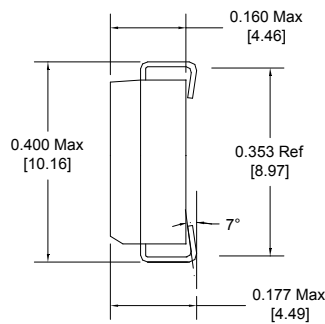
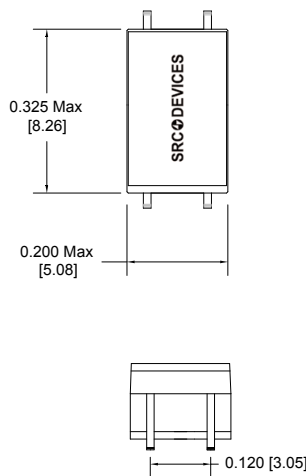


WIRING DIAGRAM
TOP VIEW

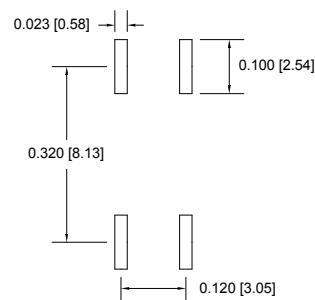


Recommended
PCB Pad Layout.

J Bend



WIRING DIAGRAM
TOP VIEW



Recommended
PCB Pad Lay out

