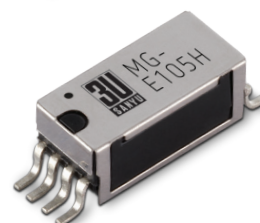


M Series Reed Relays

High Density Surface Mount

The M Series reed relay 1 Form A with excellent shielding and 4 GHz RF performance, with an optional version up to 5.5 GHz. This miniature RF relay is equipped with coaxial shield to maintain 50Ω impedance. It was developed to significantly reduce the mounting area while maintaining a maximum contact capacity of 10W. These high-density surface mount relays come in Gull-Wing and J-Lead packaging. Axial leads or 1500 V dielectric strength upon request. The M Series has a long product life that is widely accepted by the ATE, telecommunications and wireless markets.



Replace x with: G for Gull-Wing, J for J-Lead		Mx-E103H Mx-E103H-63	Mx-E105H Mx-E105H-63	Mx-E112H Mx-E112H-63	Standard = 4 GHz -63 = 5.5 GHz
Parameters	Units	1 Form A			Test Conditions
Coil Specifications					
Nominal Coil Voltage	VDC	3.3	5.0	12.0	±10% @ 20°C @ 20°C @ 20°C
Coil Resistance	Ω	80	150	500	
Operate Voltage	VDCD Max	2.8	3.75	8.8	
Release Voltage	VDC Min	0.5	0.7	1.2	
Contact Ratings					
Switching Voltage	Volts	100			Max DC/Peak AC resistance
Switching Current	Ampls	0.5			Max DC/Peak AC resistance
Carry Currentg	Amps	1.0			Max DC/Peak AC resistance (@ 30°C)
Contact Rating	Watts	10			Max DC/Peak AC resistance
Life Expectancy	x10 ⁶ Cycle	300			@ 1V 10mA
Contact Resistance	mΩ	150			Max initial @ operate voltage
Contact Resistance Stability	mΩ	5.0			Max initial @ operate voltage
Relay Specifications					
Insulation Resistance	Ω Min	10 ¹¹			Between all isolated pins @ 100V 20°C 65%RH
Dielectric Strength (Static)	VDC Min	200			Between contacts
	VDC Min	250			Contacts to shield
	VDC Min	250			Contacts/shield to coil
Operate Time (Including Bounce)	msec Max	0.3			@ nominal coil voltage
Release Time	msec Max	0.5			100 Hz square wave Diode suppression
Measurement Reference Conditions		Environmental Ratings			
Temp: 15°C to 35°C Humidity: 25% to 75%RH Atmospheric Pressure: 860 to 1060hpa		Storage temp: -40°C to +85°C Operate temp: -20°C to +80°C Vibration: 20G's to 2000Hz Shock: 50G's Processing temp: 260°C max for 60 sec. dwell time			

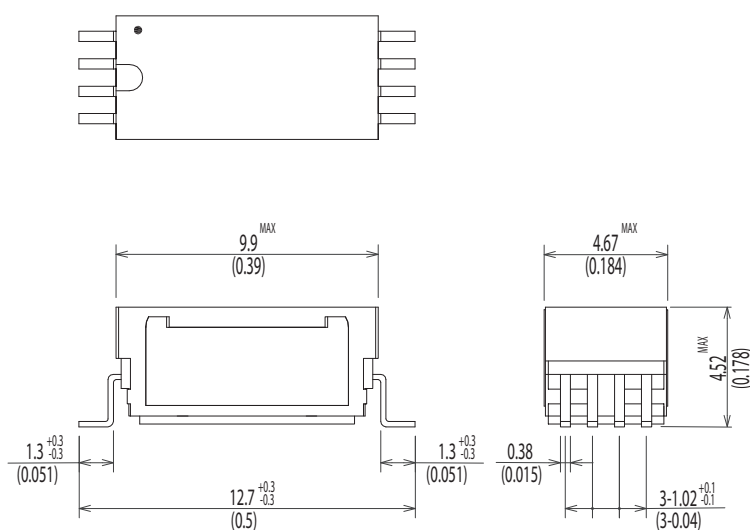
RoHS 

M Series Reed Relays

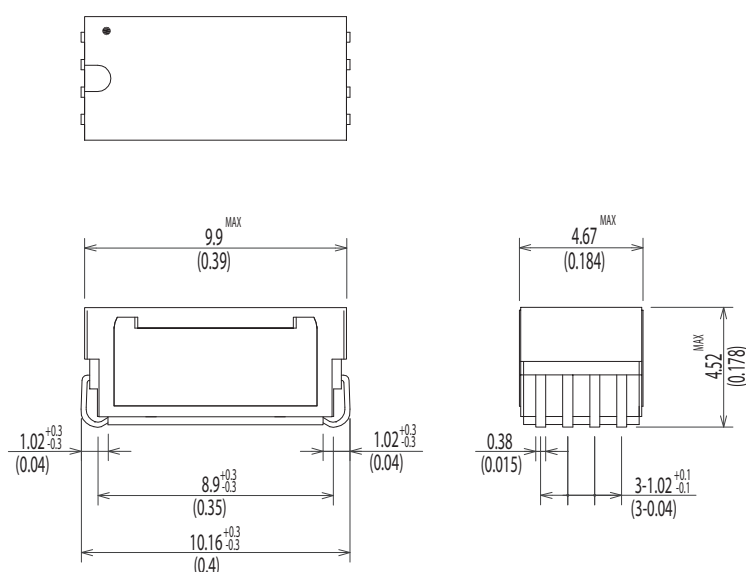


Dimensions All Dimensions are mm (inch)

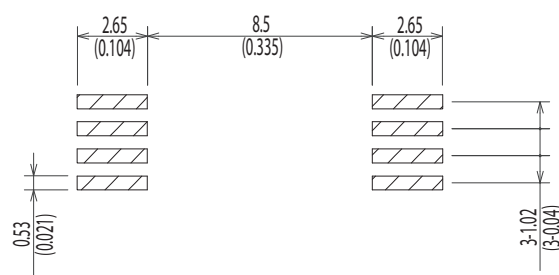
MG-E1xxH



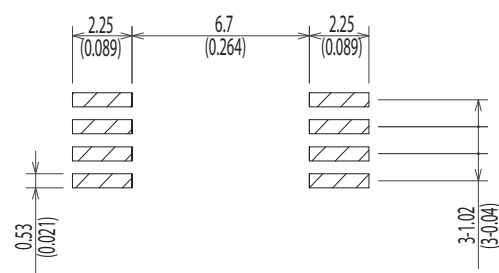
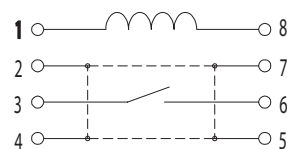
MJ-E1xxH



Land Pattern Recommendation



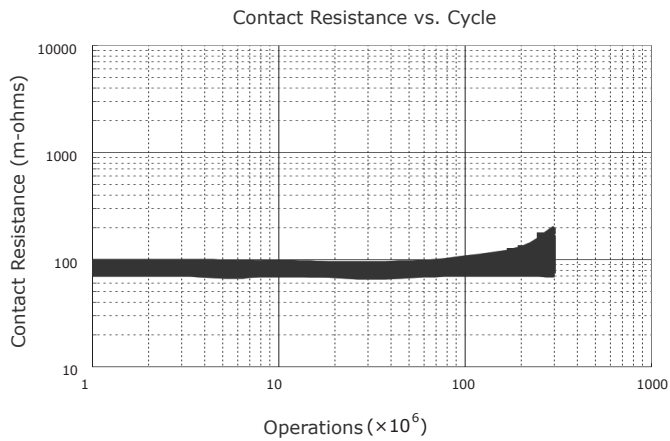
Schematic <Top View>



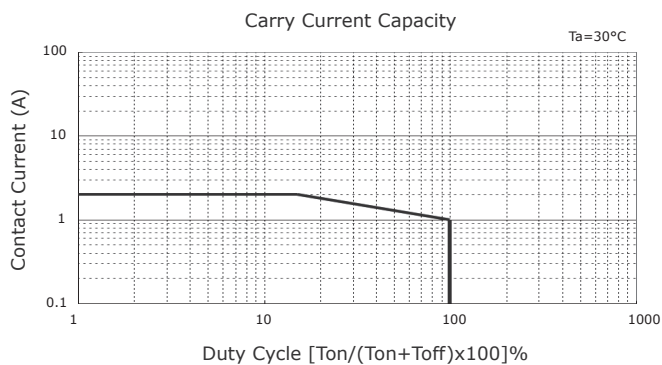
M Series Reed Relays



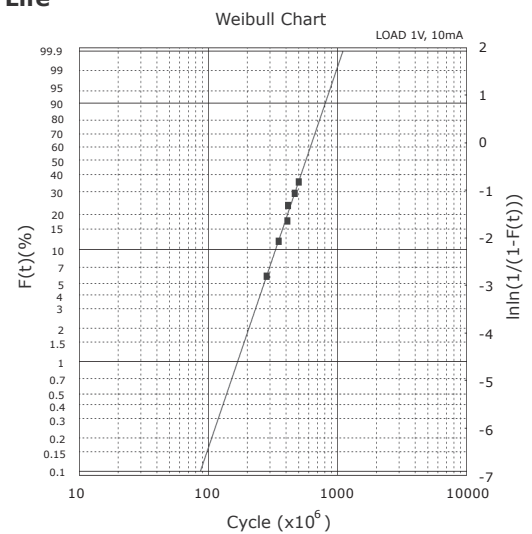
Contact Resistance



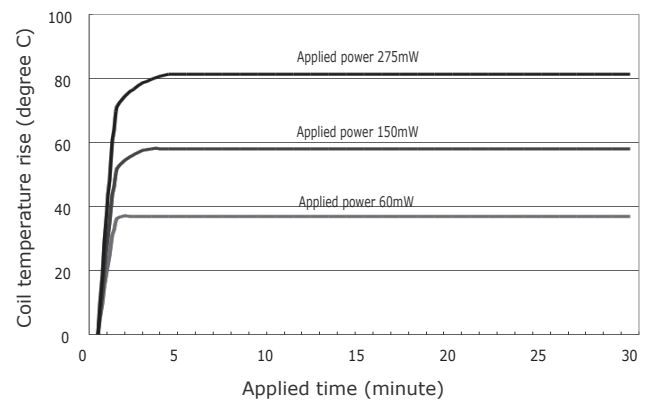
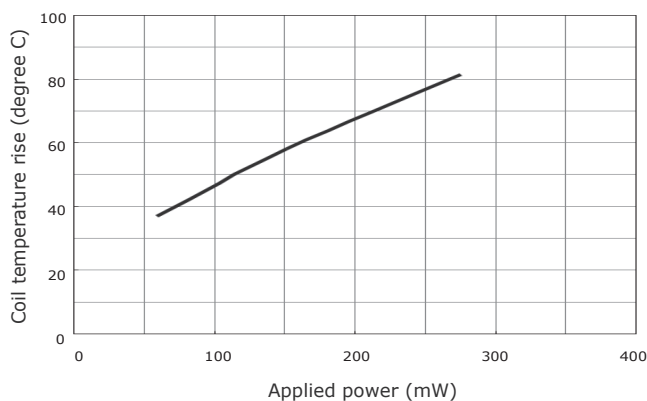
Carry Current



Life



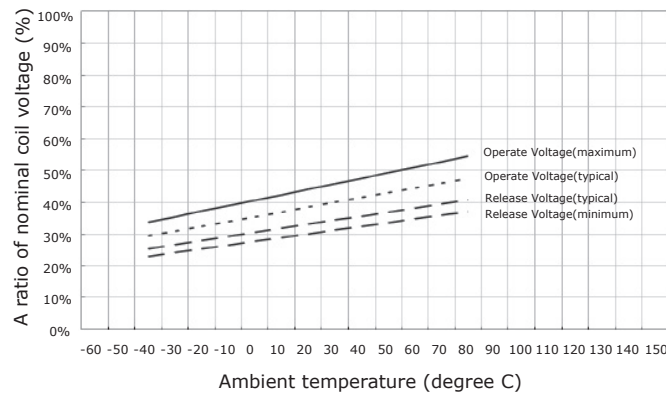
Coil Temperature Rise



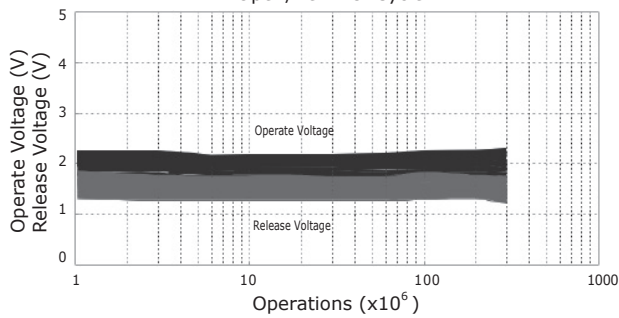
M Series Reed Relays



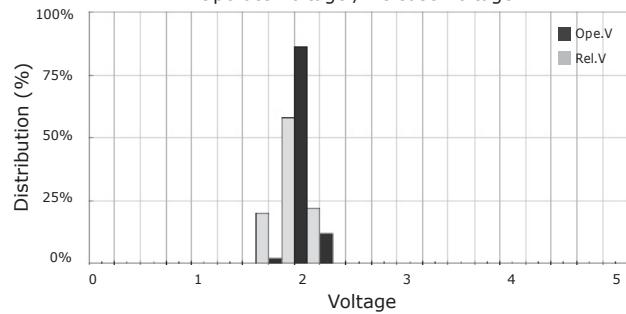
Operate and Release voltage vs. ambient temperature



OpeV/RelV vs. Cycle

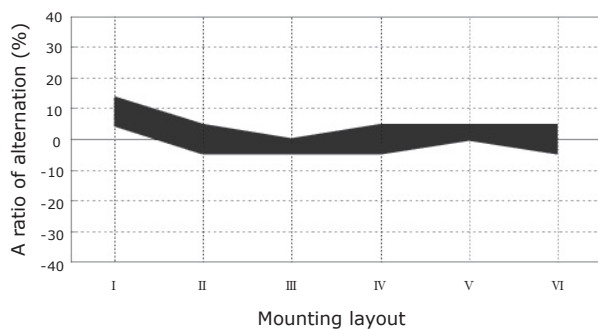


Operate Voltage / Release Voltage

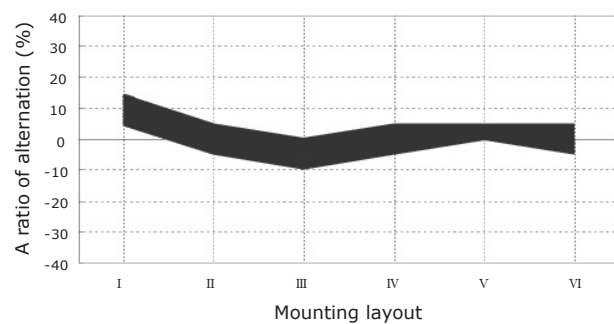


Magnetic Interference

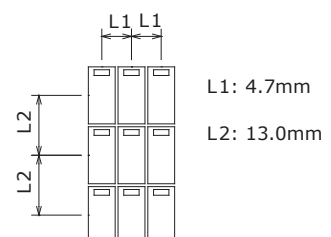
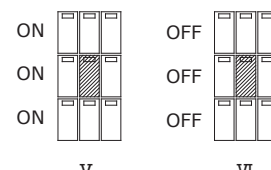
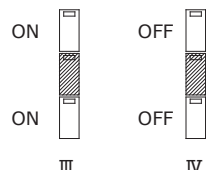
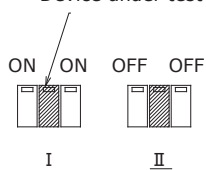
Alternation of operate voltage



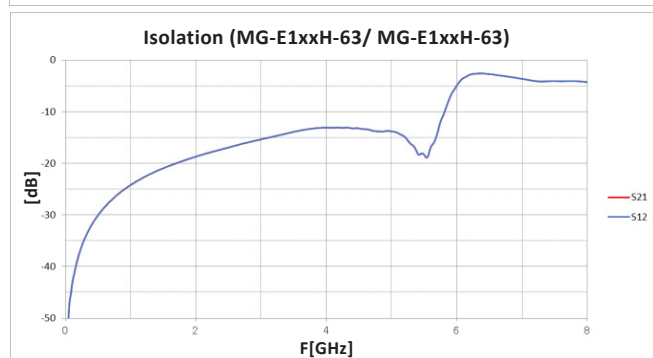
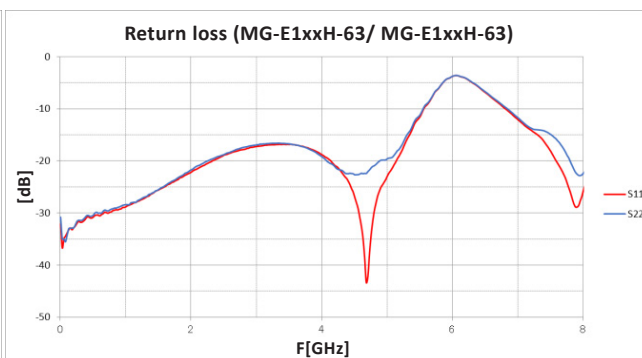
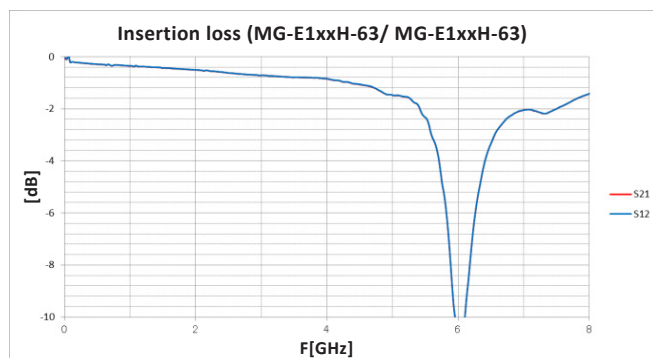
Alternation of release voltage



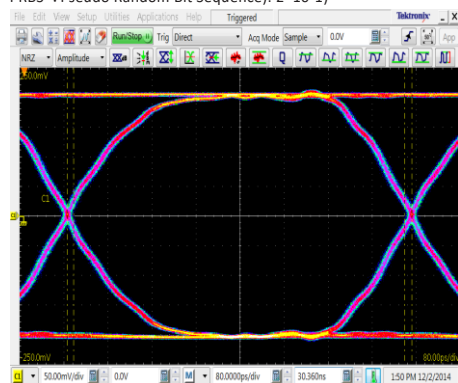
Device under test



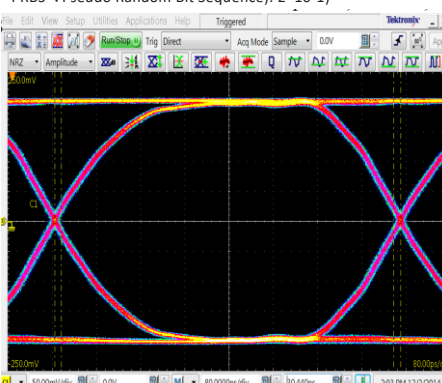
M Series Reed Relays



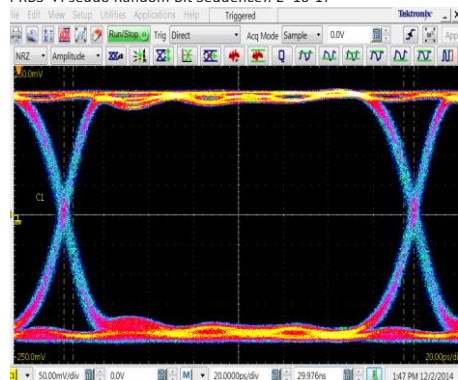
Thru Fixture
Rise Time: ≈ 250 ps Bit Rate :1.6Gb/s
PRBS $\approx$ Pseudo Random Bit Sequence): $2^{10}-1$



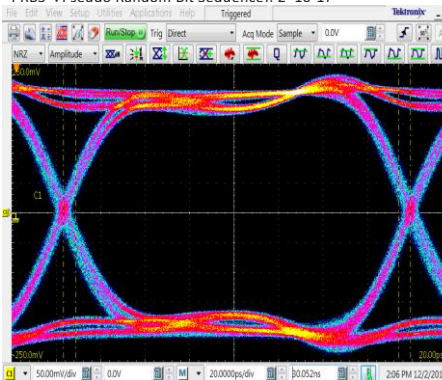
MG-E105H-63 With Fixture
Rise Time: ≈ 250 ps Bit Rate :1.6Gb/s
PRBS $\approx$ Pseudo Random Bit Sequence): $2^{10}-1$



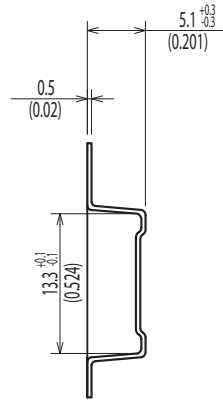
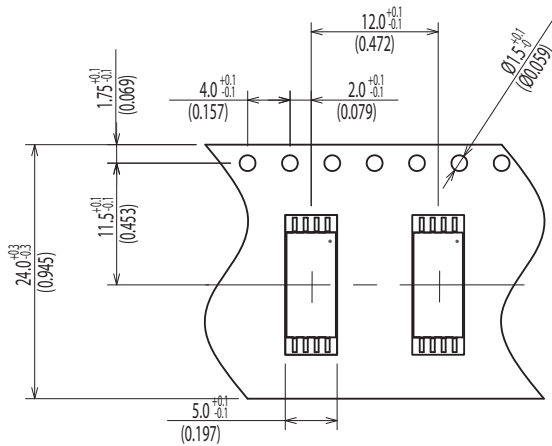
Thru Fixture
Rise Time: ≈ 30 ps Bit Rate :6.4Gb/s
PRBS $\approx$ Pseudo Random Bit Sequence): $2^{10}-1$



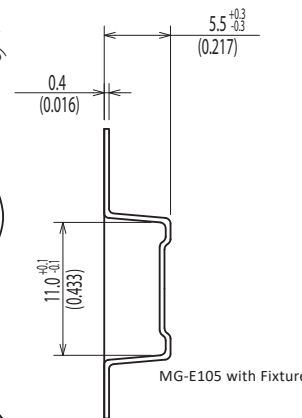
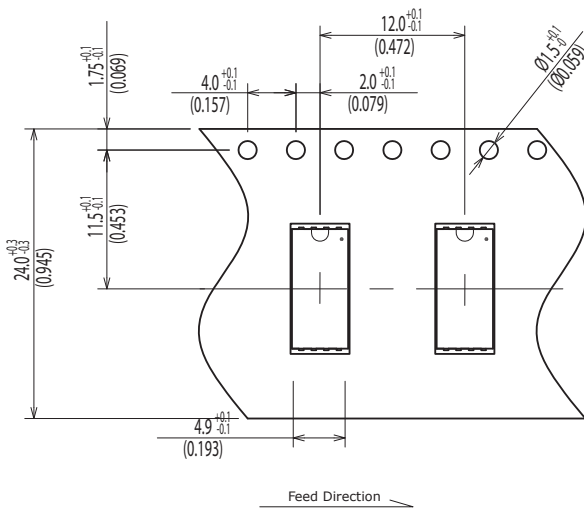
MG-E105H-63 With Fixture
Rise Time: ≈ 30 ps Bit Rate :6.4Gb/s
PRBS $\approx$ Pseudo Random Bit Sequence): $2^{10}-1$



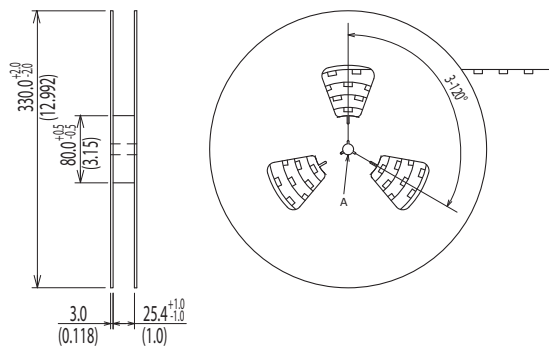
M Series Reed Relays



MG-E1xxH-xx



MJ-E1xxH-xx



Details of the part A

