

U Series Reed Relays

Ultra High Density Surface Mount

The concept of the U Series is to maintain both miniature package size and higher frequency capability. This series extended its legitimate bandwidth up to 8GHz. This series is available in a J-Lead packaging style.



The U Series is suitable for the ATE, telecommunications and wireless markets, which require higher frequency and high density assembly.

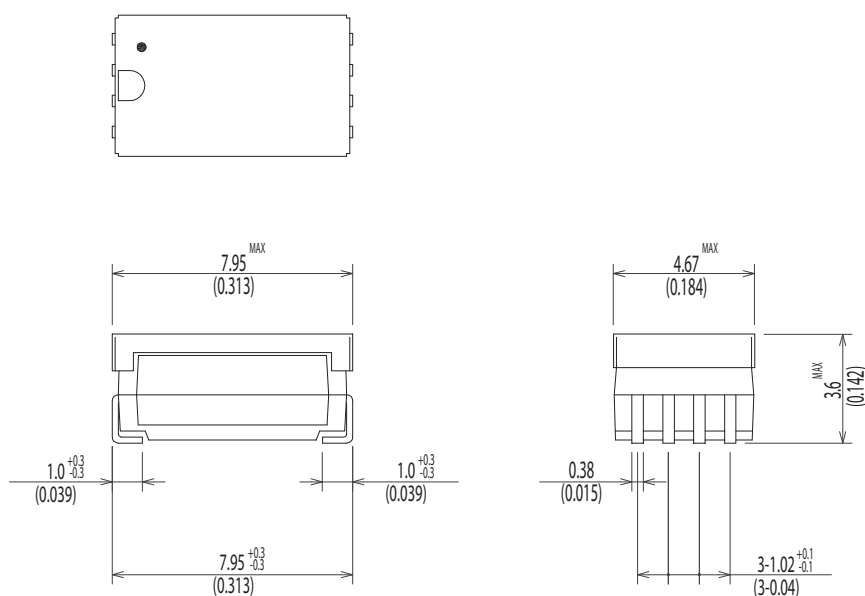
		UJ-103RF	UJ-105RF	
Parameters	Units	1 Form A		Test Conditions
Coil Specifications				
Nominal Coil Voltage	VDC	3.3	5.0	±10% @ 20°C @ 20°C @ 20°C
Coil Resistance	Ω	90	150	
Operate Voltage	VDC Max	2.8	3.75	
Release Voltage	VDC Min	0.5	0.7	
Contact Ratings				
Switching Voltage	Volts	100		Max DC/Peak AC resistance
Switching Current	Ampls	0.2		Max DC/Peak AC resistance
Carry Current	Amps	0.2		Max DC/Peak AC resistance (@ 30°C)
Contact Rating	Watts	3		Max DC/Peak AC resistance
Life Expectancy	x10 ⁶ Cycle	300		@ 1V 10mA
Contact Resistance	mΩ	200		Max initial @ operate voltage
Contact Resistance Stability	mΩ	5		Max initial @ operate voltage
Relay Specifications				
Insulation Resistance	Ω Min	10 ¹²		Between all isolated pins @ 100V 20°C 65%RH
Dielectric Strength (Static)	VDC Min	150		Between contacts
	VDC Min	500		Contacts to shield
	VDC Min	500		Contacts/shield to coil
Operate Time (Including Bounce)	msec Max	0.25		@ nominal coil voltage
Release Time	msec Max	0.05		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

U Series Reed Relays

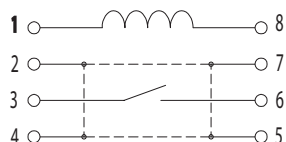
Dimensions All Dimensions are mm (inch)

UJ-103RF/UJ-105RF

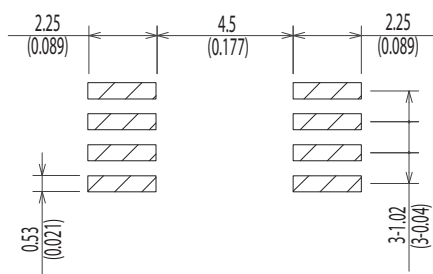


Schematic <Top View>

UJ-103RF/UJ-105RF

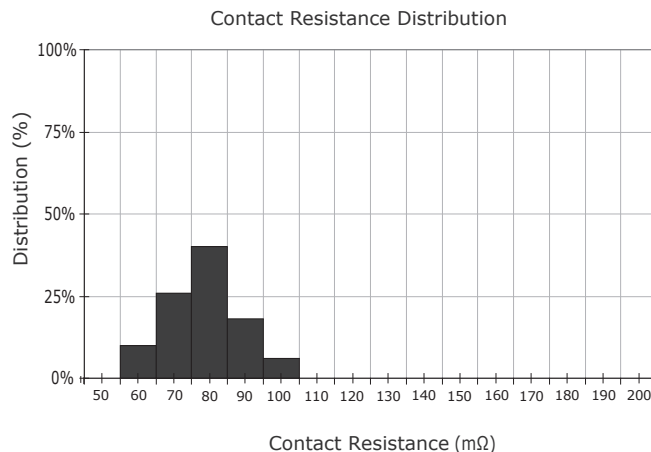
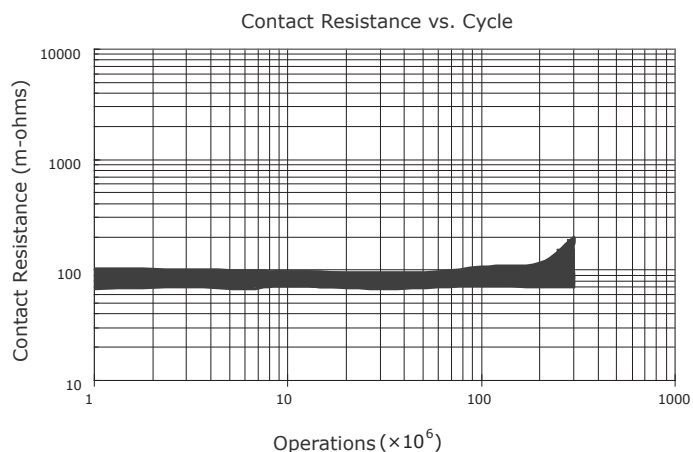


Land Pattern Recommendation

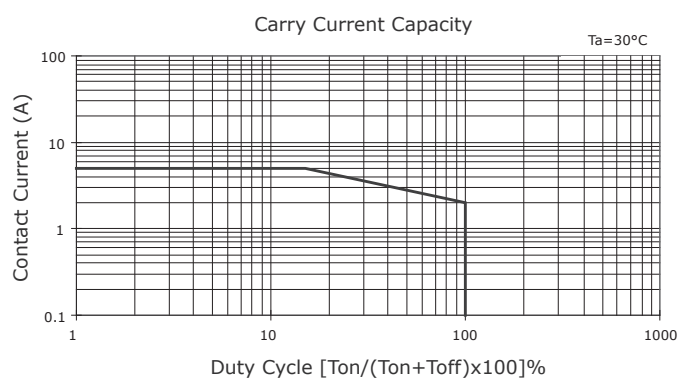


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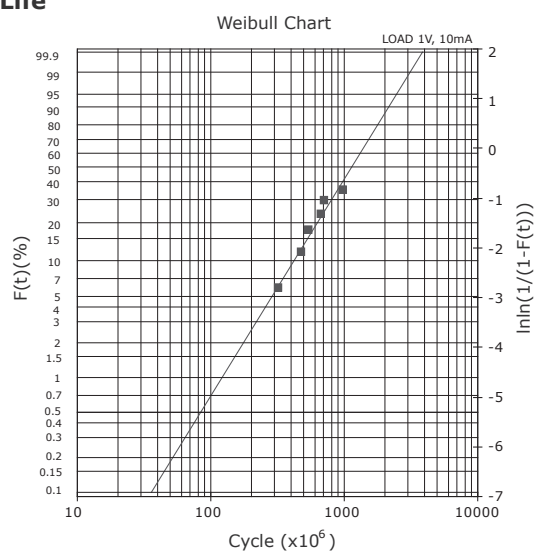
Contact Resistance



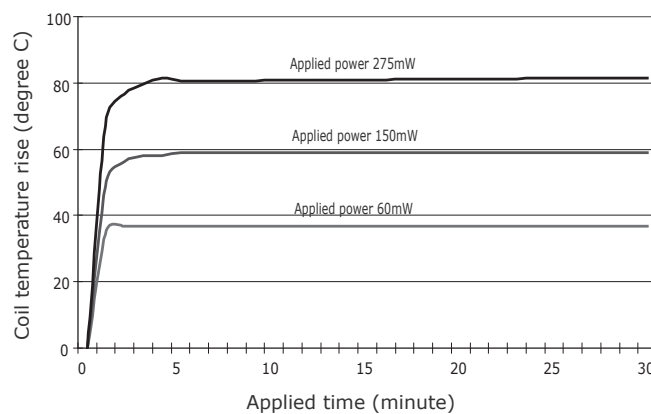
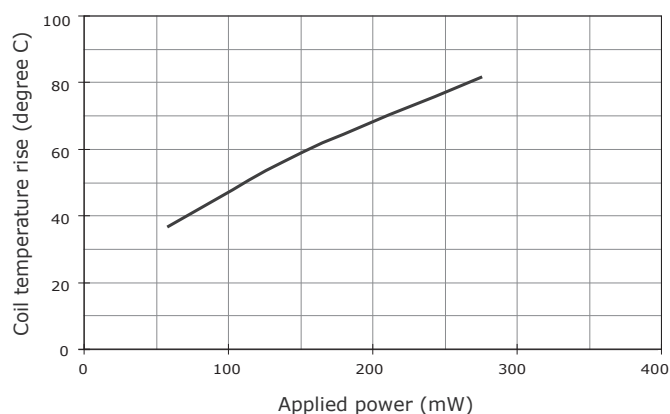
Carry Current



Life

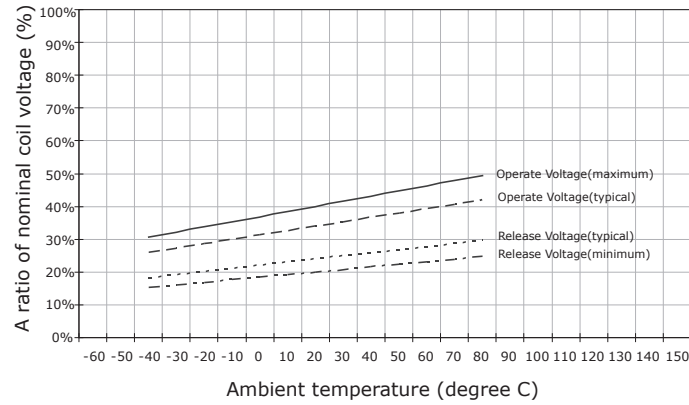


Coil Temperature Rise

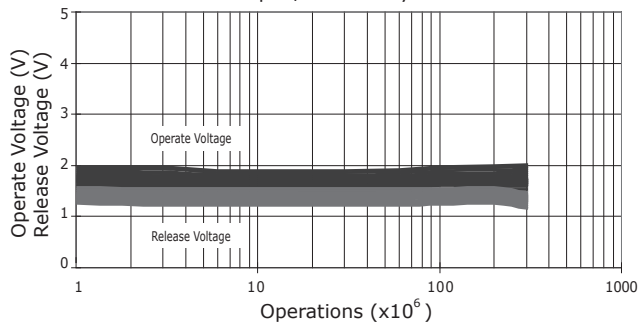


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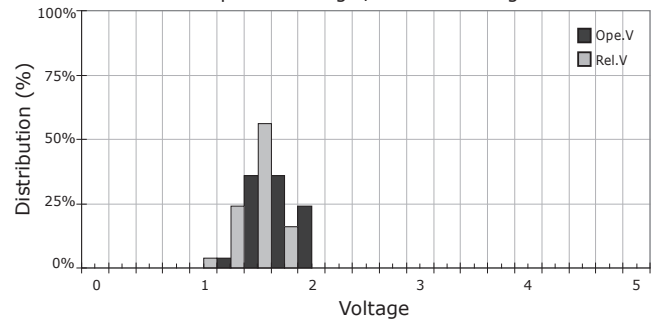
Operate and Release voltage vs. ambient temperature



OpeV/RelV vs. Cycle

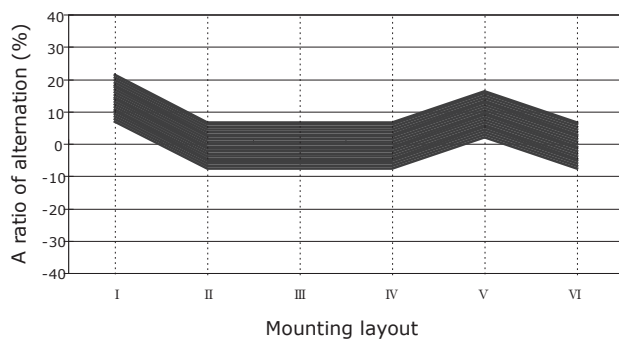


Operate Voltage / Release Voltage

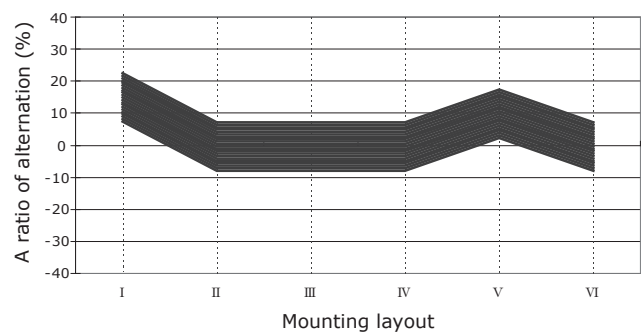


Magnetic Interference

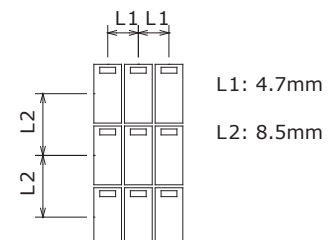
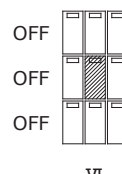
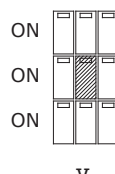
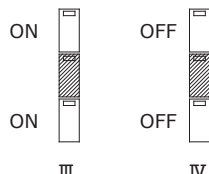
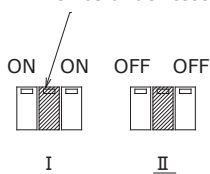
Alternation of operate voltage



Alternation of release voltage

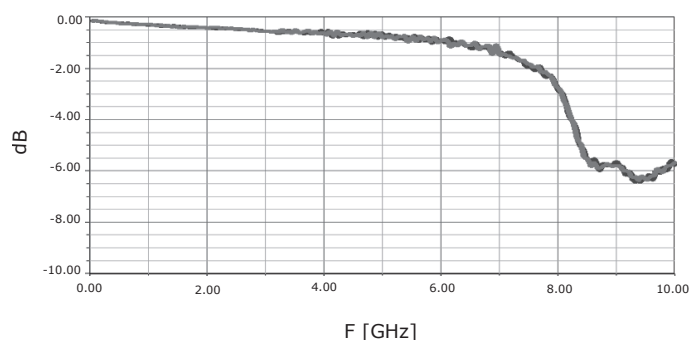


Device under test

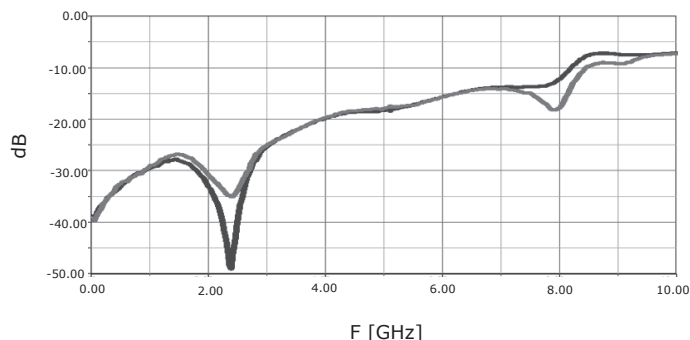


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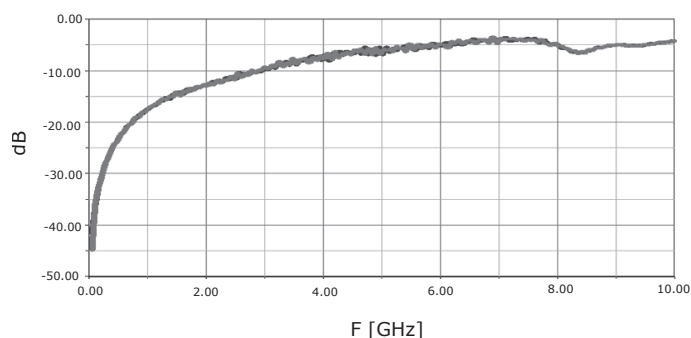
Insertion Loss



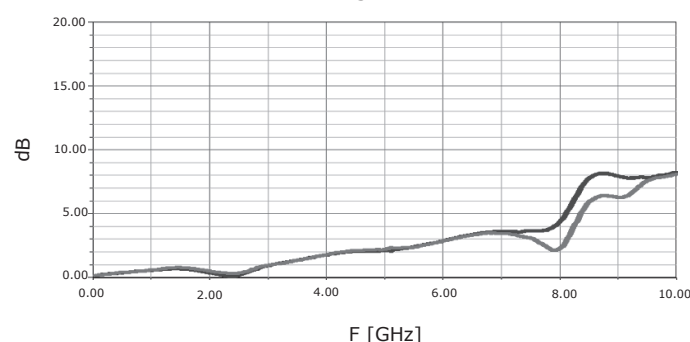
Return Loss



Isolation

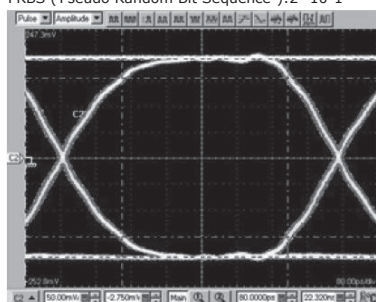


V.S.W.R.

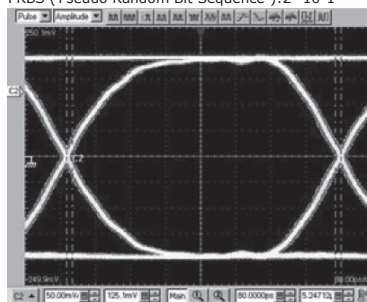


Eye Diagram

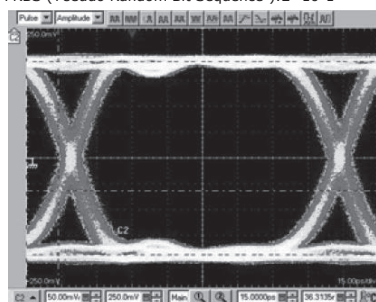
Through Fixture
Rise Time: ≈ 250 ps, Bit Rate: 1.6Gb/s
PRBS (Pseudo Random Bit Sequence): $2^{10}-1$



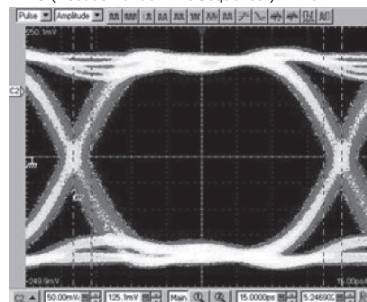
UJ-105RF with Fixture
Rise Time: ≈ 250 ps, Bit Rate: 1.6Gb/s
PRBS (Pseudo Random Bit Sequence): $2^{10}-1$



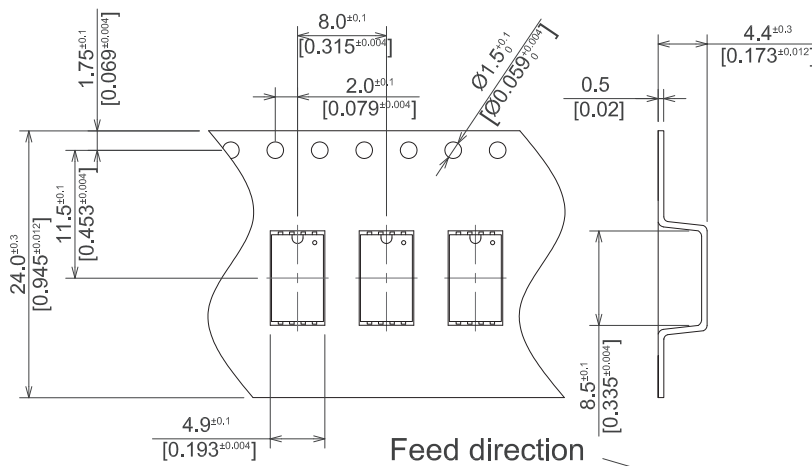
Through Fixture
Rise Time: ≈ 30 ps, Bit Rate: 8.75Gb/s
PRBS (Pseudo Random Bit Sequence): $2^{10}-1$



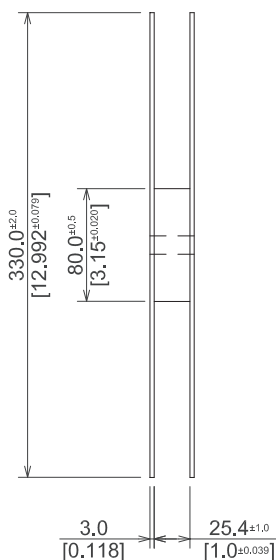
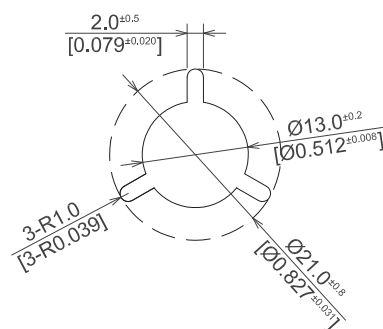
UJ-105RF with Fixture
Rise Time: ≈ 30 ps, Bit Rate: 8.75Gb/s
PRBS (Pseudo Random Bit Sequence): $2^{10}-1$



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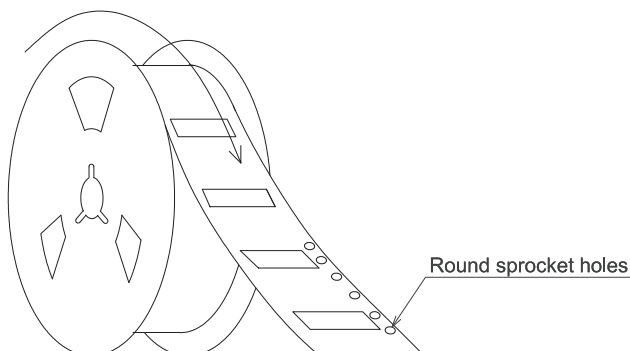


Details of the part A



Packaging Quantity

2,000pcs



All Dimensions are measured in millimeters [inch]

Packing conforms to EIA standard EIA-481-2 or EIA-481-3.