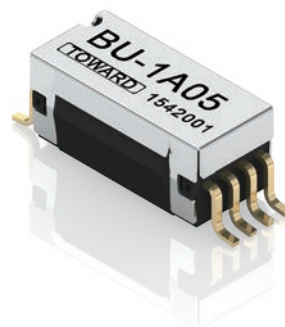


# BU Series (1a)

## Surface Mount Reed Relays

### Features

- Available in Dull wing and J lead configurations.
- Tape and Reel packaging available.
- High reliability, hermetically sealed contacts for long life.
- High insulation resistance,  $10^{12}$  minimum.
- Coaxial shield for 50 impedance. Excellent for RF and fast.
- Rise time pulse switching (up to 6 Ghz).
- External magnetic shield.



### Order Code

BU-1A XX X  
a b

a : Nominal Coil Voltage : 03=3.3VDC, 05=5VDC

b : Nil=Gull Wing Type, J=J-Lead Type

### Coil Data-Standard Type 1 Form A (at 20°C )

Nominal Voltage DC $\pm 10\%$ [V]	Max. Coil Voltage (VDC)	Coil Resistance $\pm 10\%$ (ohm)	Min. Release Voltage (VDC)	Max. Operate Voltage (VDC)
3.3	4	70	0.4	2.5
5	6	150	0.4	3.8

### Contact Rating

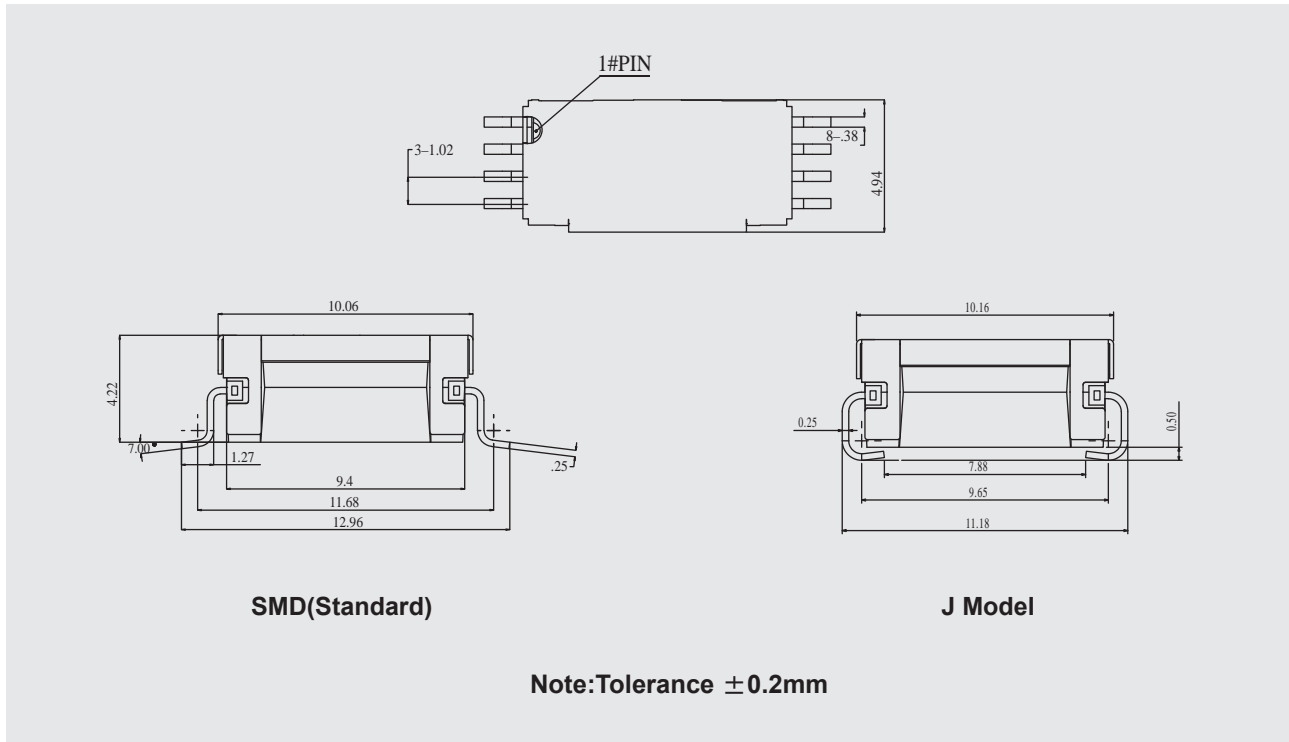
Contact Form	<b>1 Form A</b>
Contact Rating	10W
Switching Voltage	170VDC / 120VAC.RMS
Max. Switching Current	0.5A
Max. Carry Current	1.0A



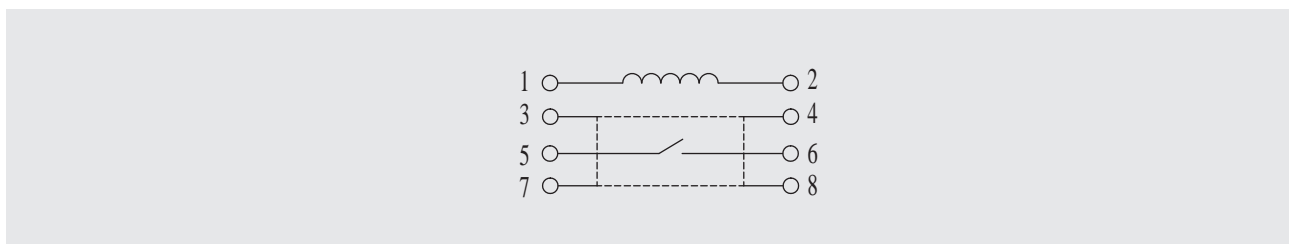
### Specification

Contact Resistance	150mΩ	
Max. Dynamic Contact Resistance	150mΩ	
Breakdown Voltage	Between contacts	210VDC / peak AC
	Contacts to shield	1500VDC / peak AC
	Contacts / shield to coil	1500VDC / peak AC
Insulation Resistance	Open contacts 1x10 <sup>12</sup> Ω	
Capacitance-Typical	Open contacts : 0.2pF	
Operate Time	0.25mS	
Release Time	0.05mS	
Vibration	20G 10~2000Hz	
shock	50G	
Operating Temperature	-20°C ~+85°C	
Storage Temperature	-35°C ~+100°C	
Life Expectancy of Mechanical	1X10 <sup>9</sup> Operations	
Life Expectancy of Electrical	Signal Level 1.0V, 10mAx10 <sup>9</sup> Ops	

### Dimensions (Unit : mm)



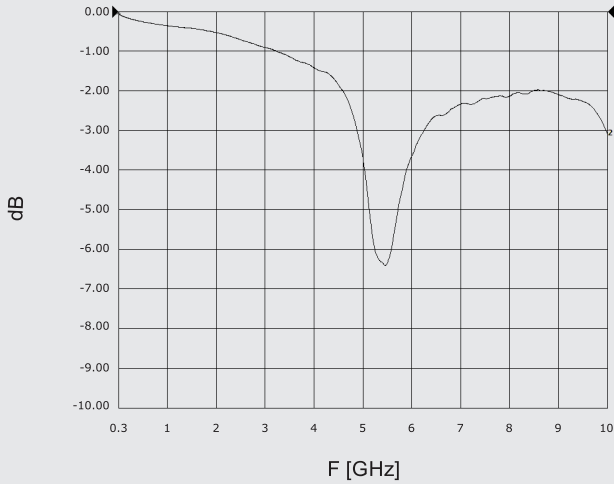
### Wiring Diagrams (Top View)



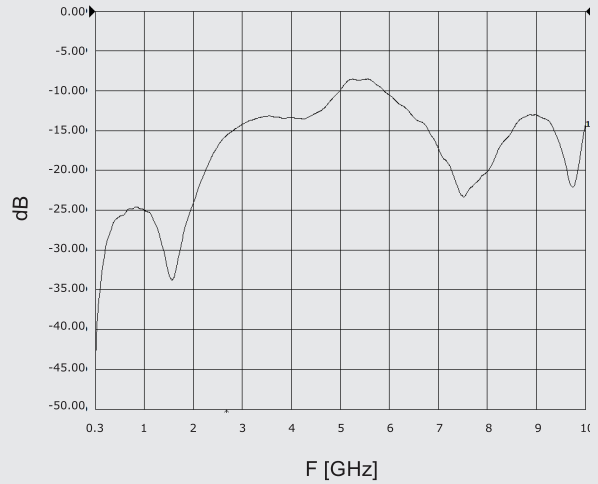


**S-Parameters (BU 105)**

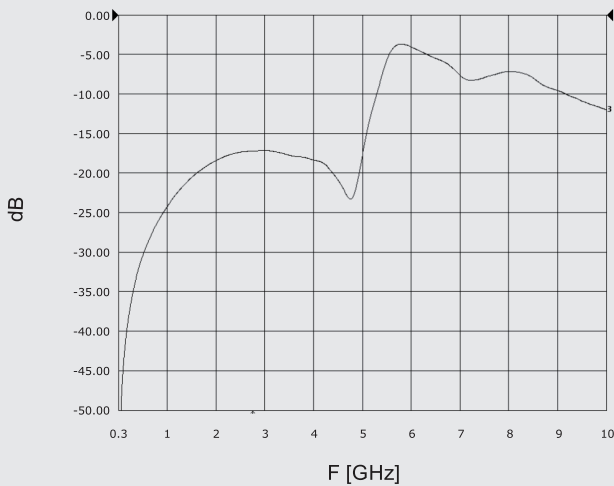
**Insertion Loss**



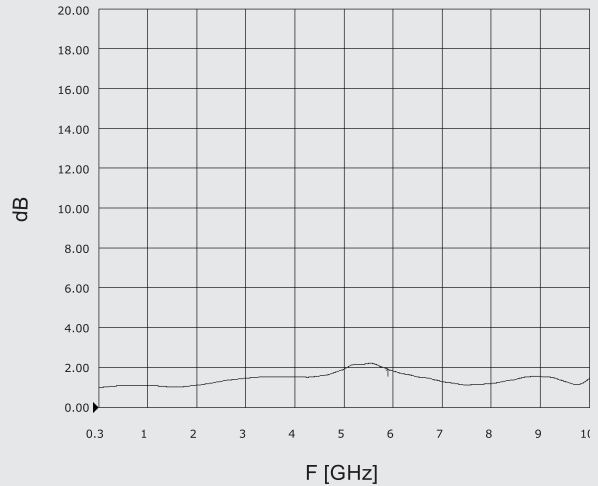
**Return Loss**



**Isolation**

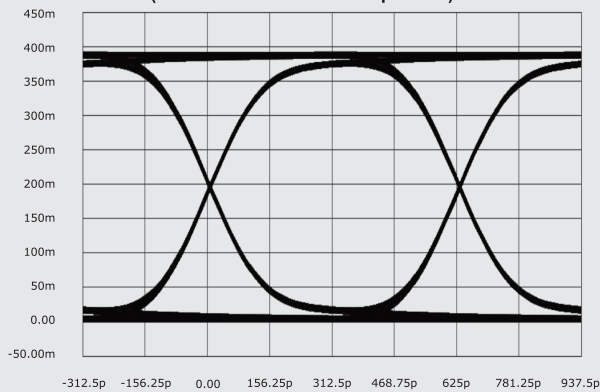


**V.S.W.R.**

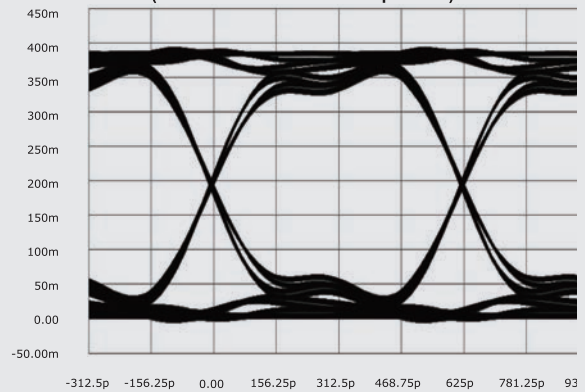


**Eye Diagram (BU 105)**

Rise Time  $\approx$  250ps , Bit Rate: 1.6Gb/s  
PRBS ( Pseudo Random Bit Sequence ):  $2^{15}-1$  bits

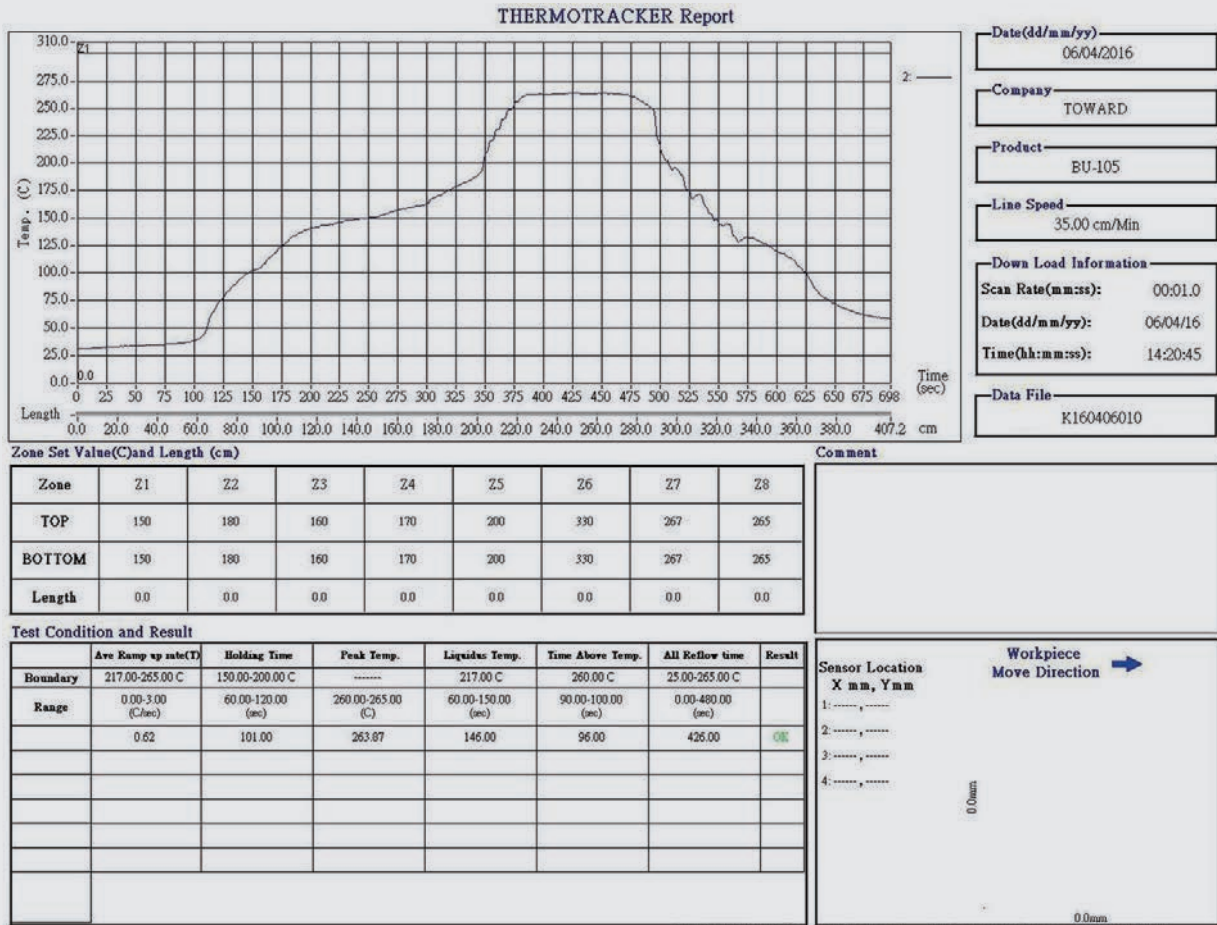


Rise Time  $\approx$  30ps , Bit Rate: 6.4Gb/s  
PRBS ( Pseudo Random Bit Sequence ):  $2^{15}-1$  bits





**Reflow Soldering Temperature can withstand 260°C / 90 sec as below profile.**



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