

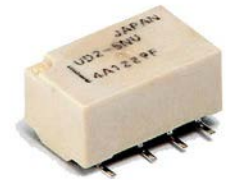
## Overview

## Applications

compact case size in a fat package. Minimal board space configuration. These relays are recognized by UL and CSA,

## Benefits

- UL recognized (E73266) and CSA certified (LR46266)

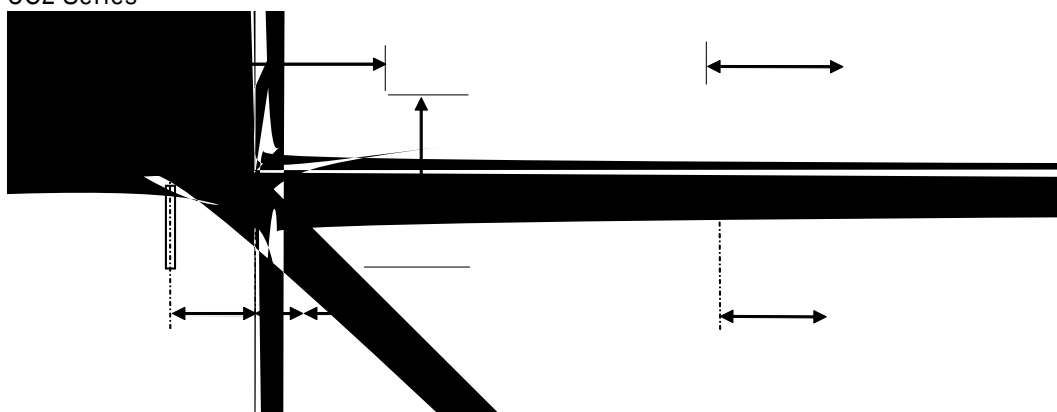


## Part Number System

UD2-	3	S	NU	-L

## Dimensions – Millimeters

UC2 Series



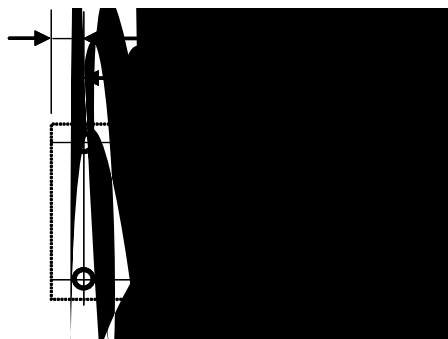




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## Land Pattern – Millimeters

UC2 Series (bottom view)

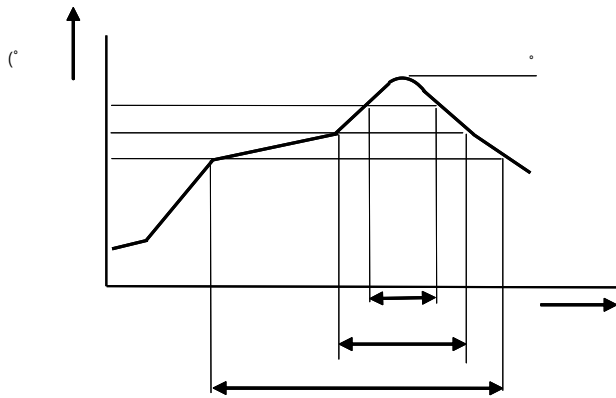


## Soldering Process

### UC2 – Through-hole Mounting

*Note: KEMET recommends cooling down a printed circuit board to less than 110°C within 40 seconds after soldering.*

### UD2 – Surface Mounting



*Note: Temperature profile shows printed circuit board surface temperature on the relay terminal portion.  
Please consult KEMET if you wish to use a temperature profile other than above.*

## Contact Specifications

<sup>\*1</sup> This value is a reference value in the resistance load. Minimum capacity changes depending on the switching frequency, environment temperature, and load.

<sup>\*2</sup> Rise time: 10  $\mu$ s; decay time to half crest: 160  $\mu$ s.

<sup>\*3</sup> Rise time: 2  $\mu$ s; decay time to half crest: 10  $\mu$ s.

<sup>\*4</sup> This shows the number of operations with fatal defects. Stable characteristics are maintained for  $1 \times 10^7$  operations.

## Coil Specifications

Non-latch Type (at 20°C)				
Nominal Coil Voltage (VDC)	Coil Resistance ( $\Omega$ $\pm 10\%$ )	Operating Voltage <sup>1</sup> (VDC)	Release Voltage <sup>1</sup> (VDC)	Nominal Operating Power (mW)

## Coil Specifications cont'd

Single Coil Latch Type (at 20°C) <sup>2</sup>				
Nominal Coil Voltage (VDC)	Coil Resistance (Ω) ±10%	Set Voltage <sup>1</sup> (VDC)	Reset Voltage <sup>1</sup> (VDC)	Nominal Operating Power (mW)

<sup>1</sup> Test by pulse voltage.

<sup>2</sup> Latch type relays should be initialized to a known position before using. Only the specified polarity should be used to energize the coil.

Non-latch, Low Power Consumption (NE, NEN) Type (at 20°C)				
Nominal Coil Voltage (VDC)	Coil Resistance (Ω) ±10%	Operating Voltage <sup>1</sup> (VDC)	Release Voltage <sup>1</sup> (VDC)	Nominal Operating Power (mW)

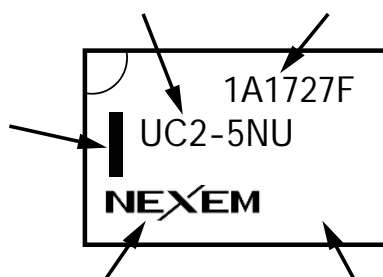
<sup>1</sup> Test by pulse voltage.

## Recommended Relay Drive Conditions

Coil Type	Rating	Ambient Temperature
	Voltage: ≤ ±5% of nominal voltage	-40 to +85°C
		-40 to +70°C
	Pulse height: ≤ ±5% of nominal voltage	-40 to +85°C

## Marking

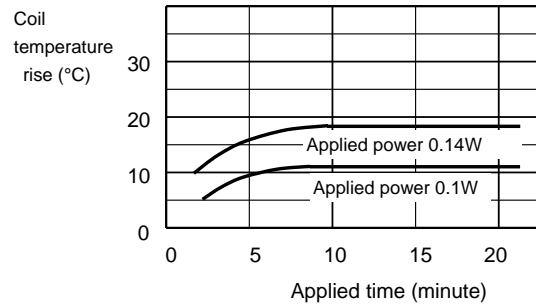
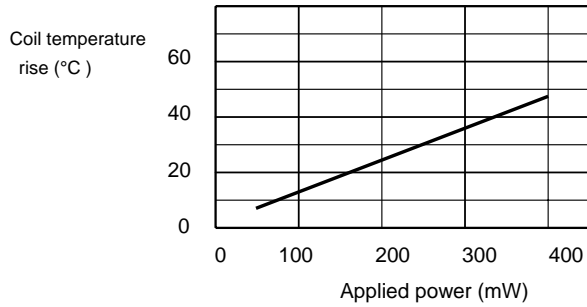
Top view



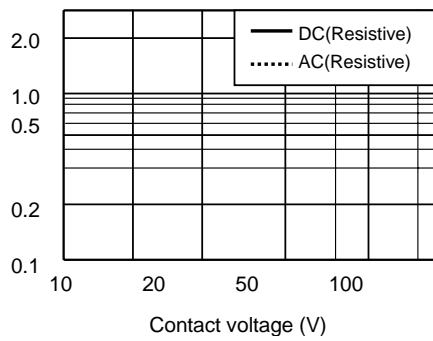


## Performance Data

### Coil Temperature Rise



### Switching Capacity

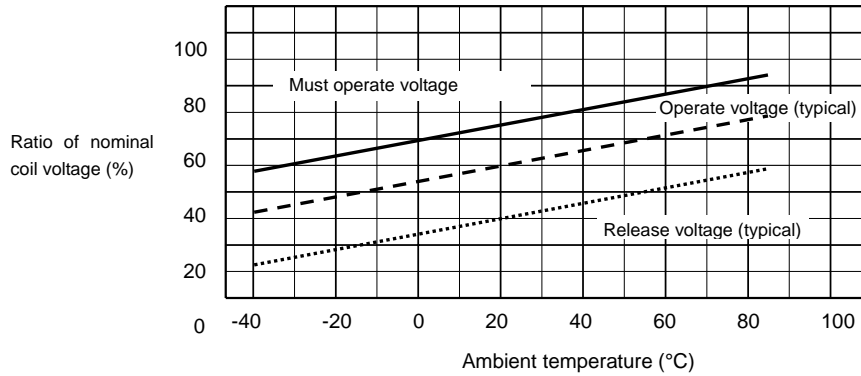


### Maximum Coil Voltage

### Applied Voltage vs. Timing

## Performance Data cont'd

### Operate and Release Voltage vs. Ambient Temperature



#### Running Test (Non-load)

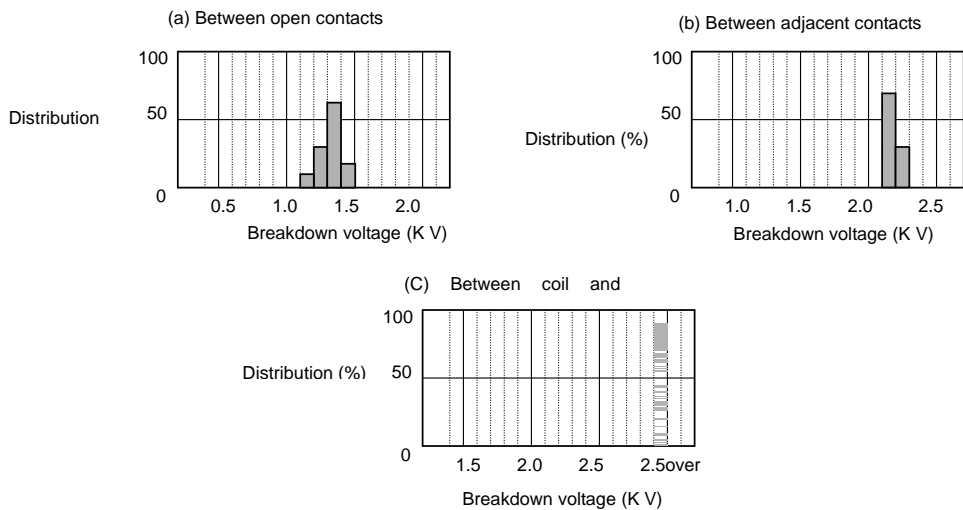
(Load: none; Drive: 5 VDC, 50 Hz, 50% duty; Ambient Temperature: room temperature; Sample: UC2-5NU, 20 pieces)

#### Running Test (Load)

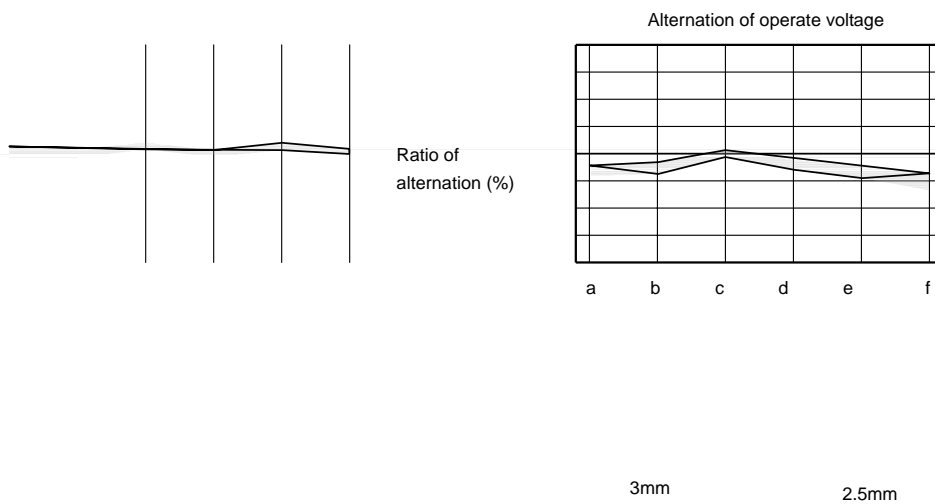
(Load: 50 VDC, 0.1 A resistive; Drive: 5 VDC, 5 Hz, 50% duty; Ambient Temperature: 85°C; Sample: UC2-5NU, 10 pieces)

## Performance Data cont'd

### Breakdown Voltage



### Alteration of Voltage in Dense Mounting

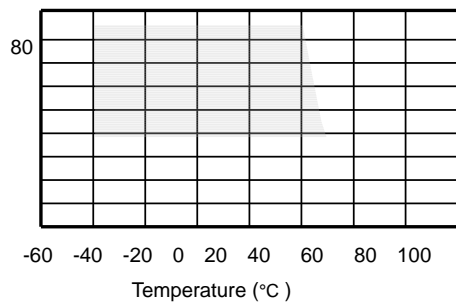






## Notes on Using Relays cont'd

illustrated in the figure below. Prevent the relay from being frozen and avoid the generation of condensation.



specified range.

## 4. Mounting

## Notes on Using Relays cont'd

### 5. Handling and Storage

dropped. If a relay drops from a workbench to the floor, a shock of 9,800 m/s

For standard packing, please use relays within 12 months after delivery (storage conditions: 30°C/60% RH). If the

- Tape Packaging: 50 ±5°C, 200–300 hours.
- Simple Relay: 85 ±5°C, 48 hours.

For MBB packing, please use relays within 2 years after delivery (storage conditions: 30°C/60% RH). After opening MBB packing, please use within 3 months (storage conditions: 30°C/60% RH).

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