KT Series Reed Relays

- **Features: High Voltage THT or SMD Relay in compact housing, High Isolation Voltage, Low Leakage Current**
- **Tested in accordance with AEC-Q200, UL listed**
- **Applications: Automotive, Battery Management Systems, Photovoltaic Inverters, Isolation Measurement**
- **Markets: E-Cars, Solar, Test & Measurement, Medical**



Part Description: KT00-0X-40L-XXX

Nominal Voltage	Contact Quantity & Contact Form	Option	Version
03, 05, 12, 24	1A	L	THT = Thru hole SMD = Surface Mount Design

Customer Options Contact Data (@ 20°C)	Switch Model 85 (A-Dry)	Unit
Contact Material	Rhodium	
Rated Power (max.) Any DC combination of V&A not to exceed max. rated power	100	W
Switching Voltage (max.) DC or peak AC	1000	V
Switching Current (max.) DC or peak AC	1.0	A
Carry Current (max.) DC or peak AC	2.5	A
Contact Resistance (max.) @ 0.5V & 10mA, Measured with 40% Pull-In Overdrive	150	mOhm
Breakdown Voltage (min.) (upon request)* According to EN60255-27	3 - 4.5*	kVDC
Operating Time (max.) Including Bounce, Measured w/40% Pull-In Overdrive	1.1	ms
Release Time (max.) Measured without Coil Suppression	0.1	ms
Insulation Resistance (min./typ.) Rh<45%, 100V Test Voltage	10^{10} /10^{12}	Ohm
Capacitance (typ.) @ 10kHz across open Switch	0.5	pF

AEC-Q200 REACH COMPLIANT RoHS COMPLIANT c UL us

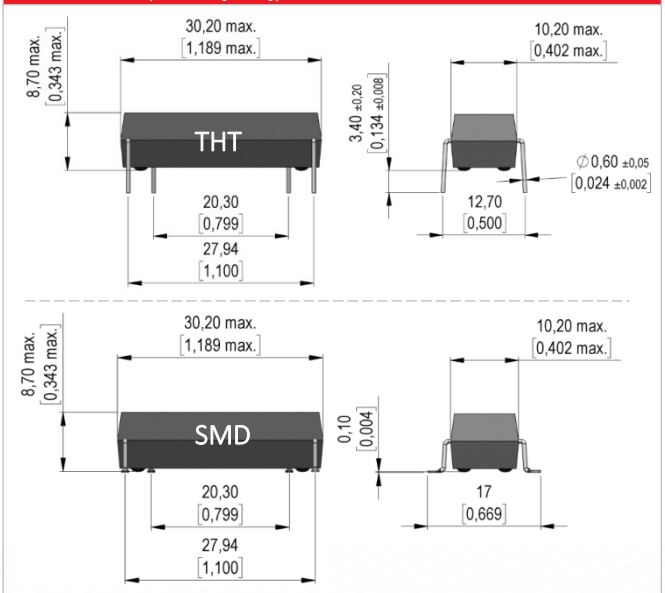
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Coil Data (at 20°C)		Coil Voltage (VDC)		Coil Resistance (Ohm)	Pull-In Voltage (VDC)	Drop-Out Voltage (VDC)	Coil Power (mW)	Coil Inductance (mH)
Contact Form	Switch Model	Nominal	Max.	Typical (± 10 %)	Max.	Min.	Nominal	Nominal
1A	85	03	05	65	2.5	0.6	138	21
		05	7.5	80	3.5	0.55	313	21
		12	16	475	8.4	1.4	303	120
		24	30	1,800	16.0	2.9	320	430
The Pull-In, Drop-Out Voltage and Coil Resistance will change at rate of 0.4% per °C								

Relay Data (@ 20°C)		Unit
Dielectric Strength Coil/Contact (min.) According to EN60255-27	100	kVDC
Insulation Resistance Coil/Contact (min/typ) 1/2 sine wave, 6md, 3-axis	$10^{12}/10^{13}$	Ohm
Capacitance Coil/Contact (typ.) @10 kHZ	1.2	pF
Shock Resistance (max.) 1/2 sine wave, 6md, 3-axis	100	g
Vibration Resistance (max.) 10 – 2,000 Hz	20	g
Operating Temperature (max.) Surrounding of the relay's housing	-40 to 100	°C
Storage Temperature (max.) Surrounding of the relay's housing	-40 to 125	°C
Soldering Temperature (max.) 5 sec. max.	260	°C
Washability Aqueous rinse suitable. Proper drying necessary.	Fully Sealed	
For the list of AEC-Q200 Tests, see page 3		

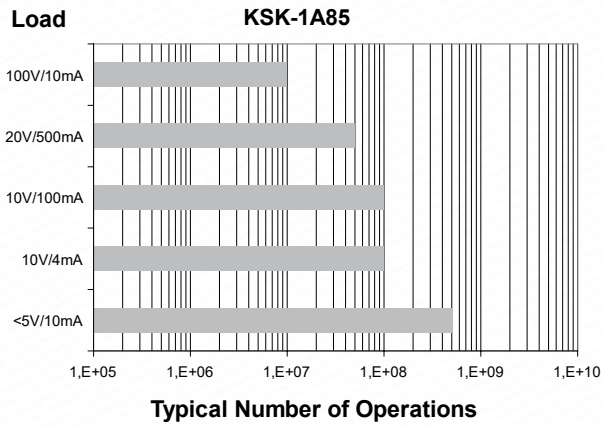
Dimensions (in mm [inch]) Tolerances acc. to ISO 2768-m



Handling & Assembly Instructions

- Switching inductive and/or capacitive loads create voltage and/or current peaks, which may damage the relay. Protective circuits need to be used - see our website.
- External magnetic fields and magnetic effects, due to adjacent relays in high density matrices that may influence the relays' electrical characteristics, must be taken into consideration.
- Mechanical shock impacts, e.g. dropping the relays, may cause immediate or post-installation failure.
- Suppressing coil diode can have a negative influence on total number of switching cycles, especially by switching high voltage
- Wave soldering: maximum 260°C / 5 seconds.
- Reflow soldering: See the page 4. Recommendations given by the soldering paste manufacturer need to be considered as well as the temperature limits of other components/processes.

Life Test Data (*Load increase reduces life expectancy of Reed Switches)



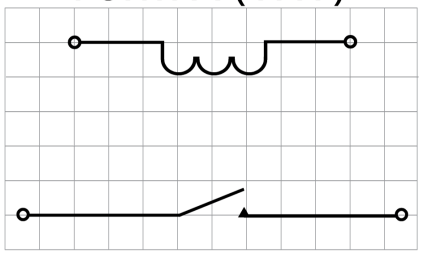
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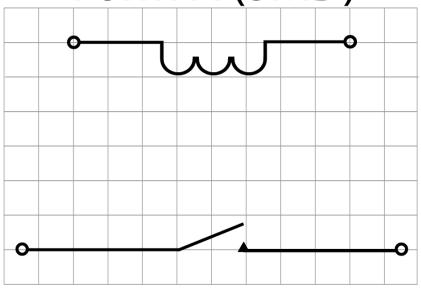
Pin-Out (Top View)

*View from top of component 2.54mm [0.10”] pitch grid

Form A (THT)



Form A (SMD)



Please note: All technical specifications on this series datasheet refer to the standard product range. Modifications in the sense of technical progress are reserved. For general information only. For more specific information, please consult the product datasheet, available upon request.

This series datasheet could contain technical inaccuracies or typographical errors. Changes are periodically made to the information herein. These change will be incorporated in future revisions.

For deviating values, most current specifications and products please contact your nearest sales office.