

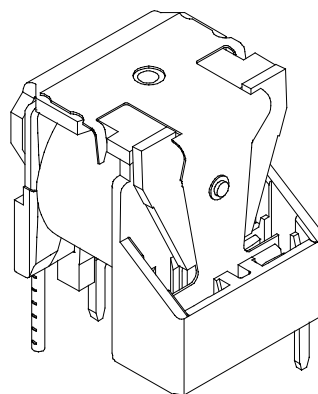


Mini power relay K

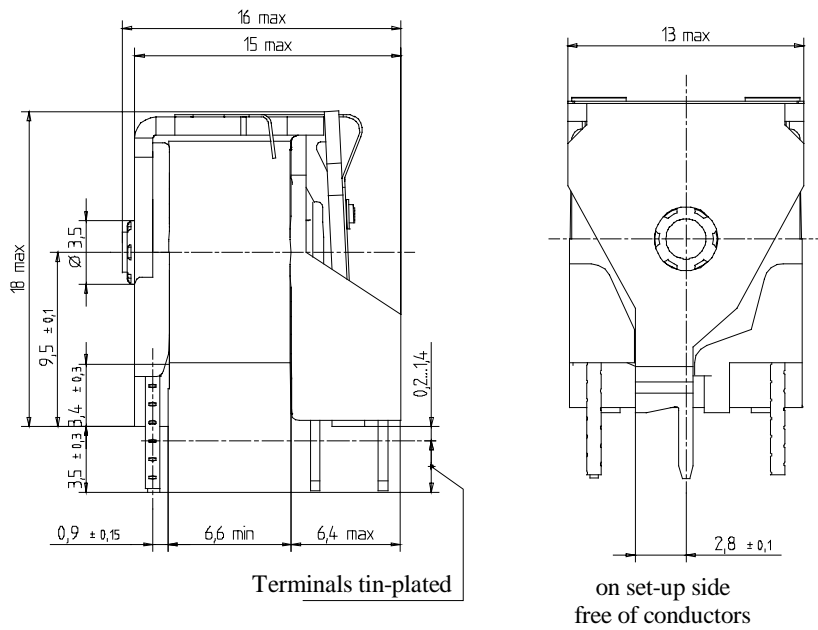
V23072-A1061-A303

Datasheet

open, changeover contact

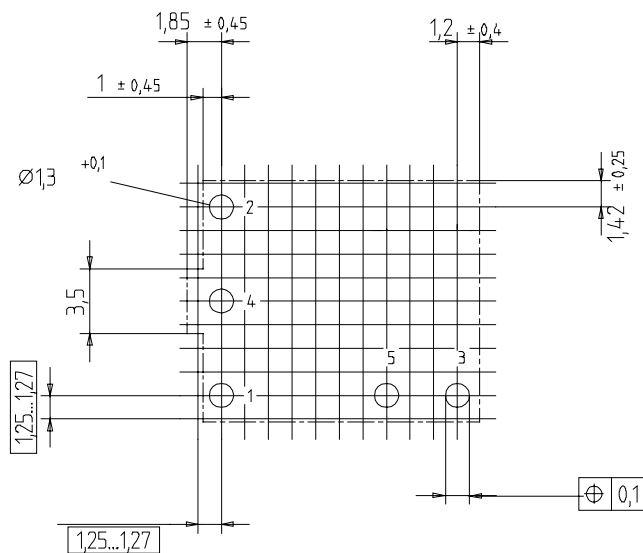


Dimensional drawing



Mounting holes

View on the bottom of the relay



Pin assignment

as show in left drawing

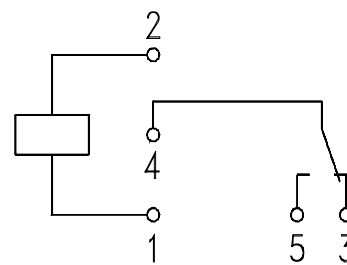
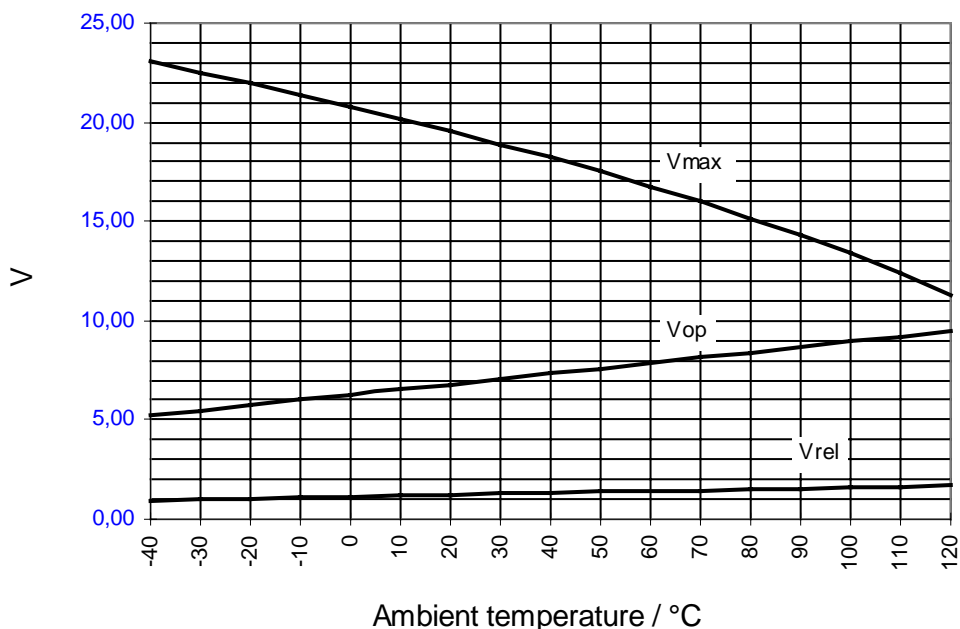


Table 1

Technical data for energizing side		
	unit	value
Nominal voltage	V	12
Max. voltage	V	see diagram
Max. operate voltage ¹ (coil temp. 23 °C)	V	6.9
Min. release voltage ¹ (coil temp. 23 °C)	V	1.2
Dielectric strenght (coil to contacts)	V _{rms}	500
Coil resistance (coil temp. 23 °C)	Ω	130 ± 13
Continuous thermal load	W	1.8
Nominal power consumption	W	1.1
Upper limit temperature	°C	155
Thermal resistance	K/W	75
Maximal ambient temperature ¹	°C	-40 to +85
Max. switching rate without contact loading	Hz	20
Operate time ²	ms	typ. 3
Release time ²	ms	typ. 1.5

Diagram: Operating voltage range



Does not take into account the temperature rise due to the contact current

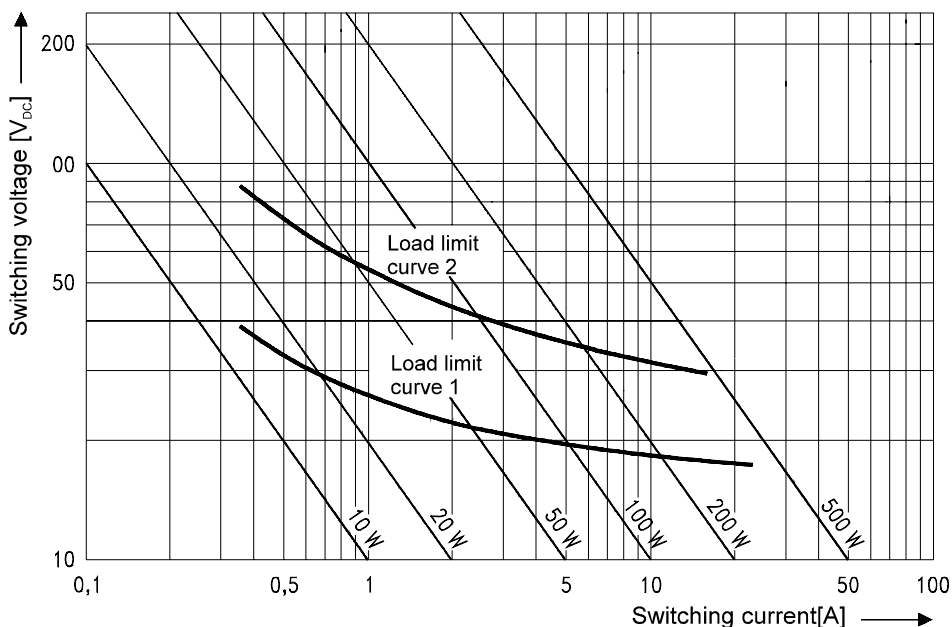
¹ See also operating voltage range diagram

² Measured at nominal voltage without coil suppression circuit

Table 2

Technical data for contact side		unit	value	
Contact material			Silver	
Circuit symbol			see Pin assignment	
Max. switching voltage		V	see Load limit curve	
Max. switching capacity		W	see Load limit curve	
Max. switching current ³	On ⁴	A	break	make
	Off	A	12	60
Limiting continuous current	at 23°C	A	10	15
	at 85°C	A	5	10
Voltage drop at 10 A		mV	typ. 70	typ. 50
Increase in coil temperature at 10 A load current		°C	typ. 20	typ. 14
Mechanical endurance (without load)		Cycles	> 10 ⁷	
Electrical endurance ³ (at 13,5 V / 10 A)		Cycles	> 2 x 10 ⁵	

Load limit curve



Load limit curve 1: arc extinguishes during transmit time
 Load limit curve 2: safe shutdown, no stationary arc

³ The values apply to a resistive load or inductive load with suitable spark suppression

⁴ This current may flow for a maximum of 3 s for a make/break ratio of 1 : 10

Table 3

Operating conditions			
Vibration resistance	IEC 68-2-6 (vibration, sinusoidal) acceleration, depending on position	10...200 Hz 23...35 g	switching position does not change for >10 μ s
Shock resistance	IEC 68-2-27 (half-sine), pulseform half-sine wave acceleration, depending on position	4...6 ms 23...280 g	switching position does not change for >10 μ s
Solderability	IEC 68-2-20	Ta, method 1	Aging 3 (4 h/155°C) De-wetting
Resistance to soldering heat	IEC 68-2-20	Tb, method 1A	10 s \pm 1 s with thermal screen

Table 4

Materials:	
Bobbin	PA 66 - GF 25
Coil-Contacts	Cu Ni 18 ZN 20 F41
Coil	ISO 317 -01 / -20
Yoke	R Fe 120
Armature	R Fe 120
Core	R Fe 120
Stationary Contact	Cu Sn 4
Spring	Cu Be 2