

## Product Description

- ◆ Opto-isolation
- ◆ TRIAC Output
- ◆ Control Current: 10mA  
Control Voltage: 5VDC, 12VDC, 24VDC
- ◆ Load Current: 1A, 2A@24-280VAC
- ◆ Dielectric Strength: 2500Vrms
- ◆ PCB Mounted
- ◆ RoHS Compliant



## Ordering Information

KSC	240	D	2	R	-24	T	(XXX)
KSC Series	Load Voltage 240: 240VAC	DC Control	Load Current 1: 1Amp 2: 2Amp	Switching Mode Blank: Zero Crossing R: Random-on	Control Mode 5: 5VDC 12: 12VDC 24: 24VDC I: 10mA	Pin Layout Blank: Standard T: T Type Footprint	Customized Code

## General Specifications

Note: Part numbers available are listed in the table below.

	1A		2A	
5VDC	KSC240D1-5	KSC240D1R-5	KSC240D2-5	KSC240D2R-5
	KSC240D1-5T	KSC240D1R-5T	KSC240D2-5T	KSC240D2R-5T
12VDC	KSC240D1-12	KSC240D1R-12	KSC240D2-12	KSC240D2R-12
	KSC240D1-12T	KSC240D1R-12T	KSC240D2-12T	KSC240D2R-12T
24VDC	KSC240D1-24	KSC240D1R-24	KSC240D2-24	KSC240D2R-24
	KSC240D1-24T	KSC240D1R-24T	KSC240D2-24T	KSC240D2R-24T
I	KSC240D1-I	KSC240D1R-I	KSC240D2-I	KSC240D2R-I
	KSC240D1-IT	KSC240D1R-IT	KSC240D2-IT	KSC240D2R-IT

Input Specifications (Ta=25°C)		
Control Current Range	I	10-35mA
Control Voltage Range	5	4-6VDC
	12	9.6-14.4VDC
	24	19.2-28.8VDC
Maximum Input Current	I	10mA
Must Turn-on Voltage	5	4VDC
	12	9.6VDC
	24	19.2VDC
Must Turn-off Current	I	1mA
Must Turn-off Voltage	5/12/24	1VDC
Maximum Input Current	5	25mA (@6VDC)
	12	25mA (@14.4VDC)
	24	25mA (@28.8VDC)

## General Specifications

### Output Specifications (Ta=25°C)

Load Voltage Range	24-280VAC	
Maximum Transient Overvoltage	600Vpk	
Maximum Off-State Leakage Current@Rated Load Voltage	1.5mA	
Minimum Off-State dv/dt@Maximum Rated	200V/μs	
Load Current Range	1A	0.1-1A
	2A	0.1-2A
Maximum Surge Current (50Hz)	1A	25Apk
	2A	35Apk
Maximum I²t for Fusing (10ms)	1A	3.1A²s
	2A	6.1A²s

Maximum On-State Voltage Drop@Rated Current	1.5Vrms
Maximum Turn-on Time	Zero Crossing: 1/2cycle+1ms, Random-on: 1ms
Maximum Turn-off Time	1/2cycle+1ms
Operational Frequency Range	47-63Hz
Minimum Power Factor (@ Maximum load)	0.5

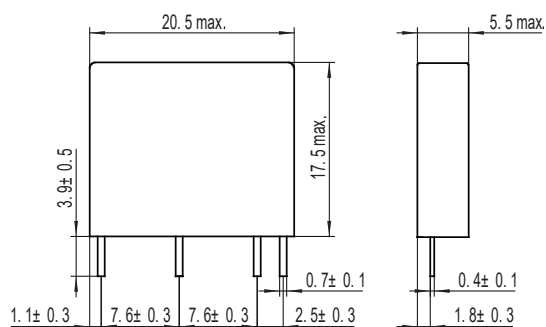
### General Specifications (Ta=25°C)

Dielectric Strength (50/60Hz)	2500Vrms
Minimum Insulation Resistance (@500VDC)	1000MΩ
Ambient Temperature Range	-30°C ~ +80°C
Storage Temperature Range	-30°C ~ +100°C
Weight (Typical)	3g

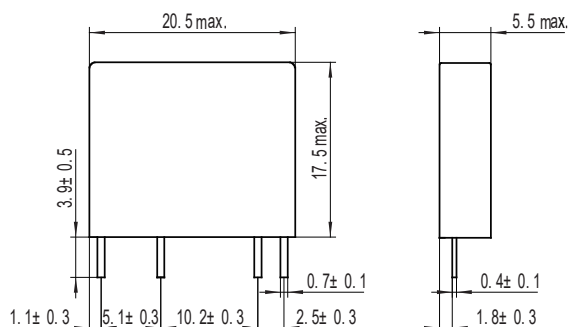
## Applications

Suitable for pumps, valve control, motor control, and PLC output node expansion.

## Outline Dimensions

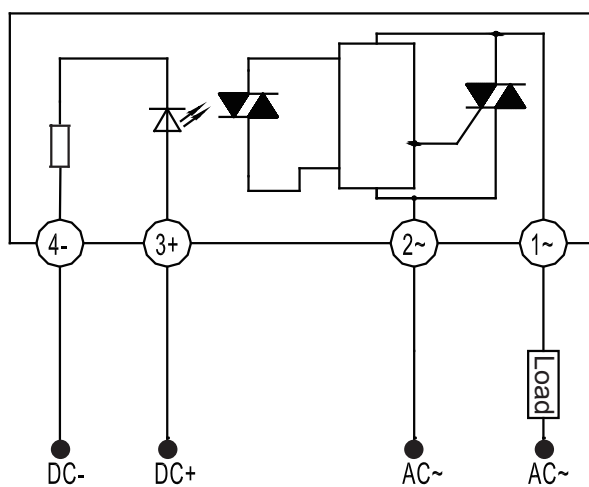


Standard Footprint

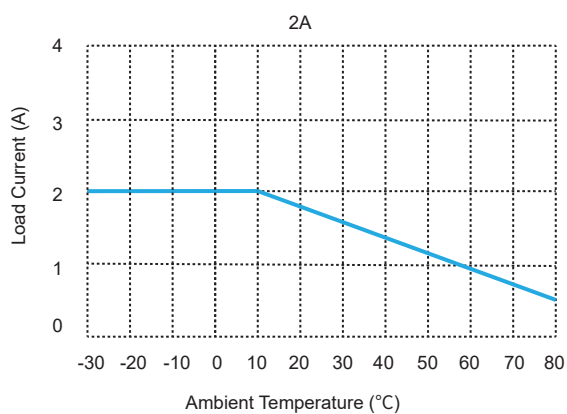
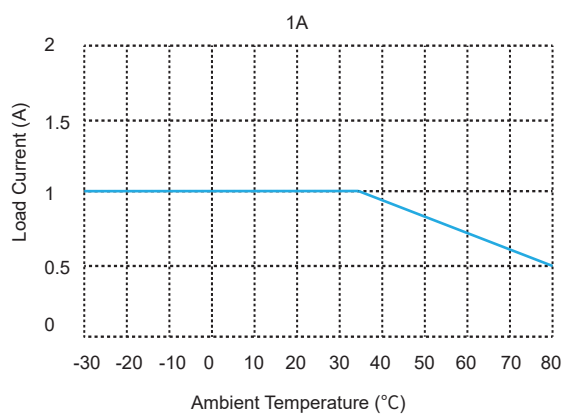


T Type Footprint

## Wiring Diagram



## Thermal Derating Curve



## General Notes

1. Soldering must be finished within 10 seconds at 260°C, or finished within 5 seconds at 350°C. Otherwise it may cause damage to the relay.
2. Terminal polarity must be observed. Otherwise it may cause damage to the relay.
3. When ambient temperature is above 25°C, the maximum load current decreases. See thermal derating curve.