

# PART NUMBERING SYSTEM

## ISOMOS™ PHOTO MOS RELAY

### STANDARD & SOP

Example part number:

WPPM - 35 2 8 S - TRU  
(1) (2) (3) (4) (5) (6)

**(1) Photo MOS**

**(2) Load Voltage**

06: 60V  
10: 100V  
20: 200V  
35: 350V  
40: 400V

**(3) Contact Characteristics**

2: 1 Form A  
4: 1 Form B  
6: 1 Form A + 1 Form B  
8: Dual Form A  
10: Dual Form B

**(4) Pin Configuration**

4: 4 pin  
6: 6 pin  
8: 8 pin  
16: 16 pin

**(5) Package Types**

D: DIP  
A: SMD  
S: SOP

**(6) Taping**

TLD: Tape Direction Left  
TRU: Tape Direction Right

### CUSTOM VERSIONS

Example part number:

WPPML - 35 2 4 S - TRU  
(1) (2) (3) (4) (5) (6)

**(1) Photo MOS Custom**

**(2) Load Voltage**

35: 350V  
06: 60V (only available in SOP package)

**(3) Contact Characteristics**

2: 1 Form A

**(4) Pin Configuration**

4: 4 pin

**(5) Package Types**

D: DIP  
A: SMD  
S: SOP

**(6) Taping**

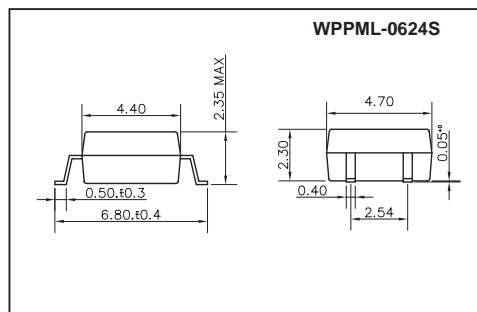
TLD: Tape Direction Left  
TRU: Tape Direction Right

Not all combinations are available



## Features

1. Normally open, single pole single throw.
2. Control 60VAC or DC voltage.
3. Switch 400mA loads.
4. LED control current, 2mA.
5. Low ON-resistance.
6.  $dv/dt$ , >500V/mS.
7. Isolation test voltage, 1500V<sub>RMS</sub>.



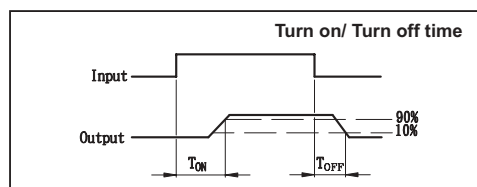
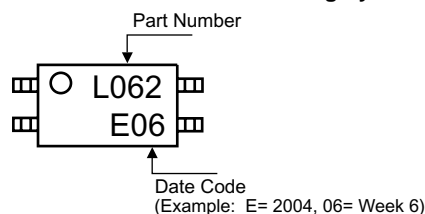
Part Numbering System: Page 1

## Absolute Maximum Ratings

(Ta=25°C)

Emitter ( Input )		Detector ( Output )	
Reverse Voltage.....	5.0V	Output Breakdown Voltage .....	±60V
Continuous Forward Current .....	50mA	Continuous Load Current .....	±400mA
Peak Forward Current .....	1A	Power Dissipation .....	500mW
Power Dissipation .....	100mW		
Derate Linearly from 25°C .....	1.3mW/°C		
General Characteristics			
Isolation Test Voltage.....	1500VRMS	Storage Temperature Range ....	-40°C to +150°C
Isolation Resistance		Operating Temperature Range....	-40°C to +85°C
V <sub>IO</sub> = 500V, T <sub>A</sub> = 25°C .....	≥10 <sup>10</sup> Ω	Junction Temperature.....	100°C
Total Power Dissipation .....	550mW	Soldering Temperature,	
Derate Linearly from 25°C .....	2.5mW/°C	2mm from case, 10 sec .....	260°C

## Part Marking System



## Characteristics

(Ta=25°C)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Emitter (Input)						
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 10mA		1.2	1.5	V
Operation Input Current	I <sub>FON</sub>	V <sub>L</sub> = ±20V, I <sub>L</sub> = 100mA, t = 10ms			2	mA
Recovery Input Current	I <sub>FOFF</sub>	V <sub>L</sub> = ±20V, I <sub>L</sub> ≤ 5uA	0.2			mA
Detector (Output)						
Output Breakdown Voltage	V <sub>B</sub>	I <sub>B</sub> = 50uA	60			V
Output Off-State Leakage	I <sub>TOFF</sub>	V <sub>T</sub> = 60V, I <sub>F</sub> = 0mA		0.2	1	uA
I/O Capacitance	C <sub>ISO</sub>	I <sub>F</sub> = 0, f = 1MHz		6		pF
ON Resistance	R <sub>ON</sub>	I <sub>L</sub> = 100mA, I <sub>F</sub> = 10mA		7	10	Ω
Turn-On Time	T <sub>ON</sub>	I <sub>F</sub> = 10mA, V <sub>L</sub> = ±20V		0.2	1.5	ms
Turn-Off Time	T <sub>OFF</sub>	t = 10ms, I <sub>L</sub> = ±100mA		0.3	1.5	ms

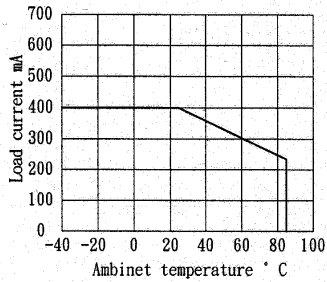
## MOS Relay Schematic and Wiring Diagrams

Type	Schematic	Output configuration	Load	Connection	Wiring Diagrams
0624S		1a	AC/DC	-	

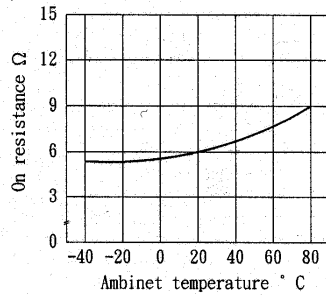


**Data Curve**

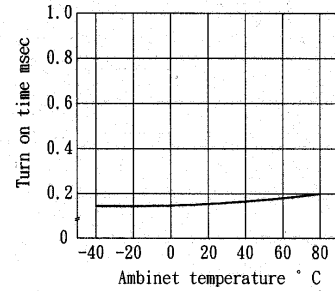
Load current vs. ambient temperature  
Allowable ambient temperature:  
-40°C to +85°C



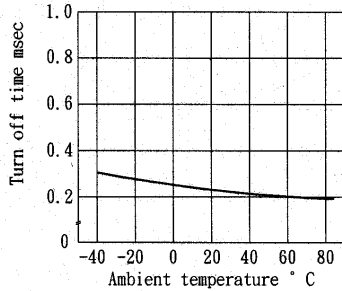
On resistance vs. ambient temperature  
Across terminals 3 and 4 pin  
LED current: 5mA  
Continuous load current: 130 mA(DC)



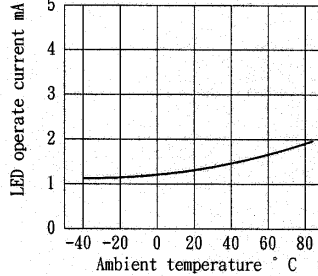
Turn on time vs. ambient temperature  
Load voltage 60 V(DC)  
LED current :5mA  
Continuous load current: 130mA(DC)



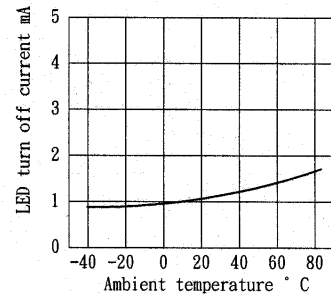
Turn off time vs. ambient temperature  
LED current: 5mA; Load voltage: 60V(DC)  
Continuous load current: 130mA(DC)



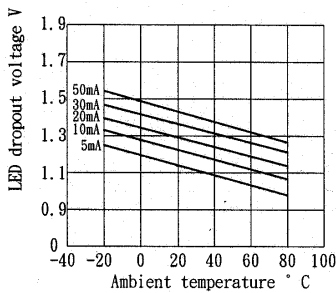
LED operate vs. ambient temperature  
Load voltage: 60V(DC)  
Continuous load current: 130mA(DC)



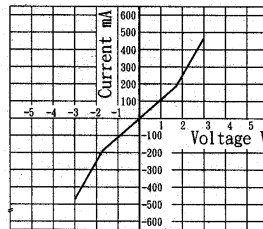
LED turn off current vs. ambient temperature  
Load voltage: 60V(DC)  
Continuous load current: 130mA(DC)



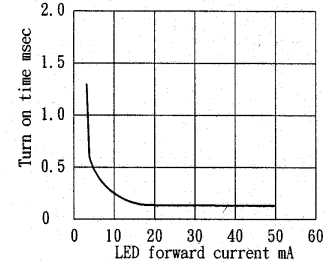
LED dropout voltage vs. ambient temperature  
LED current: 5 to 50mA



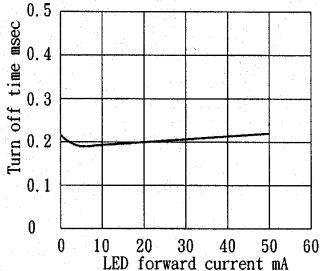
Voltage vs. current characteristics of output at MOS FET portion  
Measured portion: across terminals 3 and 4 pin  
Ambient temperature: 25° C



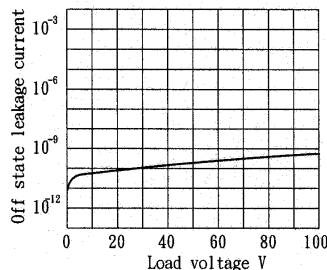
LED forward current vs. turn on time  
Across terminals 3 and 4pin; Load voltage: 60V(DC); Continuous load current: 130mA(DC); Ambient temperature: 25° C



LED forward current vs. turn off time  
Across terminals 3 and 4pin; Load voltage: 60V(DC); Continuous load current: 130 mA(DC); Ambient temperature: 25° C



Off state leakage current  
Across terminals 3 and 4pin  
Ambient temperature: 25° C



Applied voltage vs. output capacitance  
Across terminals 3 and 4pin  
Frequency: 1MHz; Ambient temperature: 25° C

