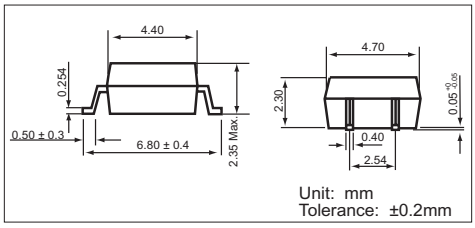
USR/CNR Listed (File# E223388)

Features

1. Normally open, single pole single throw.
2. Control 200VAC or DC voltage.
3. Switch 180mA loads.
4. LED control current, 5mA.
5. Low ON-resistance.
6. dv/dt, >500V/mS.
7. Isolation test voltage, 1500VRMS.
8. Package Type: SOP(shown)

Part Numbering System & Part Marking System: Page 3 & 4.

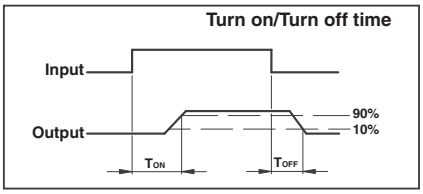
WPPM-1024S



Absolute Maximum Ratings

(Ta = 25°C)

Emitter (Input)	Detector(Output)
Reverse Voltage.....5.0V	Output Breakdown Voltage .....±100V
Continuous Forward Current 50mA	Continuous Load Current .....±150mA
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
VIO = 500V, TA = 25°C.....>$10^{10}\Omega$	Junction Temperature ..... 100°C
Total Power Dissipation 500mW	Soldering Temperature,
Derate Linearly from 25°C .....2.5mW/°C	2mm from case, 10 sec. ..... 260°C

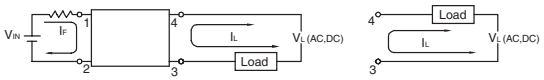


Electro-optical Characteristics

(Ta = 25°C)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Emitter (Input)						
Forward Voltage	VF	IF = 10mA	-	1.2	1.5	V
Operation Input Current	IFON	VL = ±20V, IL = 100mA, t = mS	-	-	2	mA
Recovery Input Current	IFOFF	VL = ±20V, IL = <5uA	0.2	-	-	mA
Detector(output)						
Output Breakdown Voltage	VB	IB = 50uA	100	-	-	V
Output Off-State Leakage	ITOFF	VT = 100V, IF = 0mA	-	0.2	1	uA
I/O Capacitance	CISO	IF = 0, f = 1MHz	-	6	-	pF
ON Resistance	RON	IL = 100mA, IF = 10mA	-	6	8	Ω
Turn-On Time	TON	IF = 10mA, VL = ±20V	-	0.3	2.0	mS
Turn-Off Time	TOFF	t = 10mS, IL = ±100mA	-	0.3	1.0	mS

MOS Relay Schematic and Wiring Diagrams

Type	Schematic	Output Configuration	Load	Connection	Wiring Diagrams
1024S		1a	AC/DC	A	

Data Curves

Fig.1 Load current vs. ambient temperature
Allowable ambient temperature: -40°C to +85°C

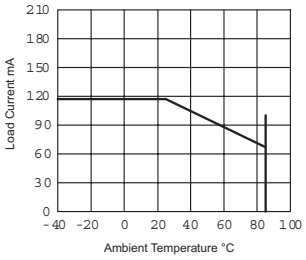


Fig.2 On resistance vs. ambient temperature
Across terminals 3 and 4 pin
LED current: 5mA
Continuous load current: 130mA(DC)

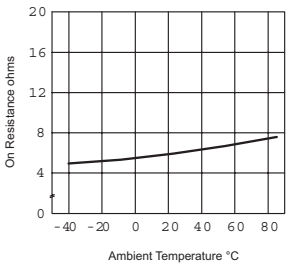


Fig.3 Turn on time vs. ambient temperature
Load voltage: 100V(DC)
LED current: 5mA
Continuous load current: 130mA(DC)

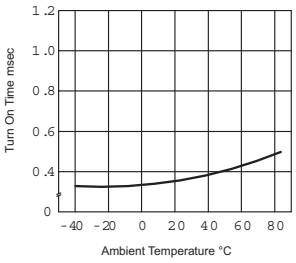


Fig.4 Turn off time vs. ambient temperature
Load voltage: 100V (DC)
LED current: 5mA
Continuous load current: 130mA(DC)

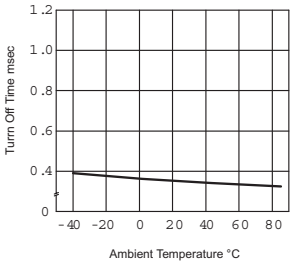


Fig.5 LED operate vs. ambient temperature
Load voltage: 100V(DC)
Continuous load current: 130mA(DC)

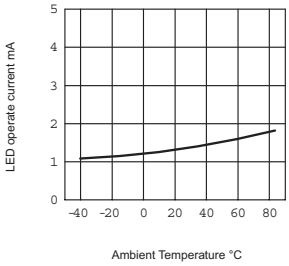


Fig.6 LED turn off current vs. ambient temperature
Load voltage: 100V(DC)
Continuous load current: 130mA(DC)

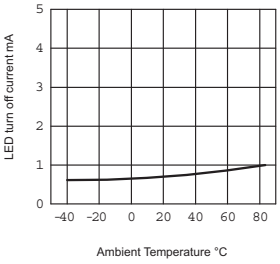


Fig.7 LED dropout voltage vs. ambient temperature
LED current: 5 to 50mA

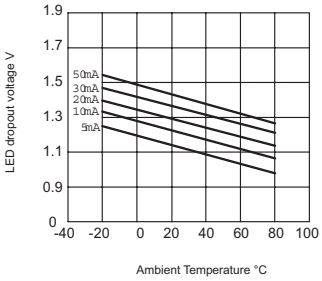


Fig.8 Voltage vs. current characteristics of output at MOSFET portion
Measured portion: Across terminals 3 and 4 pin; Ambient temperature: 25°C

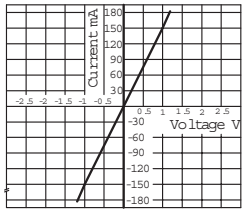


Fig.9 LED forward current vs. turn on time
Across terminals 3 and 4 pin,
Load Voltage: 100V(DC),
Continuous load current: 130mA(DC),
Ambient Temperature: 25°C

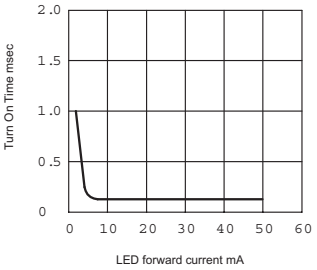


Fig.10 Off State leakage current
Across terminals 3 and 4 pin,
Ambient Temperature: 25°C

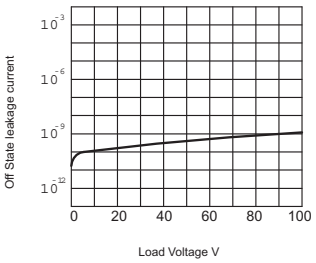


Fig.11 LED forward current vs. turn off time
Across terminals 3 and 4 pin,
Load Voltage: 100V(DC),
Continuous load current: 130mA(DC),
Ambient Temperature: 25°C

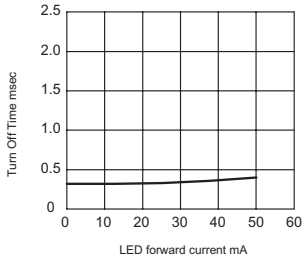


Fig.12 Applied voltage vs. output capacitance
Across terminals 3 and 4 pin,
Frequency: 1MHz,
Ambient Temperature: 25°C