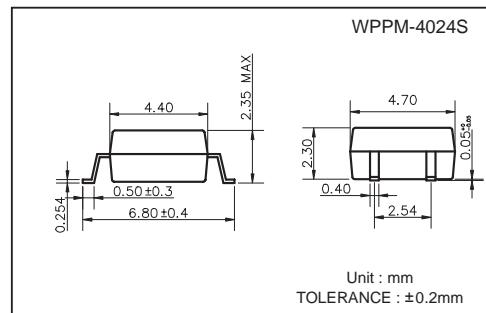


Features

1. Normally open, single pole, single throw.
2. Control 400VAC or DC voltage.
3. Switch 130mA loads.
4. LED control current, 5mA.
5. Low ON-resistance.
6. dv/dt, >500V/mS.
7. Isolation test voltage, 1500VRMS.

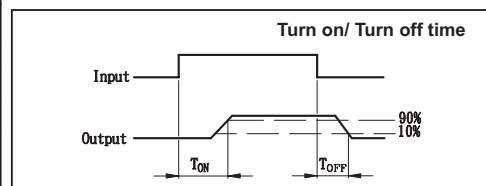


Part Numbering System & Part Marking System: Page 3 & 4.

Absolute Maximum Ratings

(Ta=25°C)

Emitter (Input)	Detector (Output)
Reverse Voltage.....5.0V	Output Breakdown Voltage±400V
Continuous Forward Current50mA	Continuous Load Current±130mA
Peak Forward Current1A	Power Dissipation500mW
Power Dissipation100mW	
Derate Linearly from 25°C1.3mW/°C	
General Characteristics	
Isolation Test Voltage.....1500VRMS	Storage Temperature Range ...-40°C to +125°C
Isolation Resistance	Operating Temperature Range...-30°C to +85°C
VIO = 500V, TA = 25°C $\geq 10^{10}\Omega$	Junction Temperature.....100°C
Total Power Dissipation550mW	Soldering Temperature,
Derate Linearly from 25°C2.5mW/°C	2mm from case, 10 sec260°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 = 10mS			5	mA
Recovery Input Current	IFOFF	VL = ±20V, IL ≤ 5uA	0.2			mA
Detector (Output)						
Output Breakdown Voltage	VB	IB = 50uA	400			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		20	30	Ω
Turn-On Time	TON	IF = 10mA, VL = ±20V		0.3	1.0	mS
Turn-Off Time	TOFF	t = 10mS, IL = ±100mA		0.7	1.5	mS

MOS Relay Schematic and Wiring Diagrams

Type	Schematic	Output configuration	Load	Connection	Wiring Diagrams
4024S		1a	AC/DC	A	

Data Curve

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

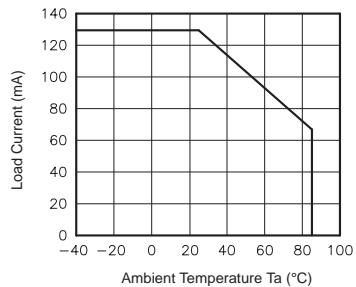


Fig.2 On resistance vs. ambient temperature
Across terminals 3 and 4 pin
LED current: 5mA
Continuous load current: 130mA(DC)

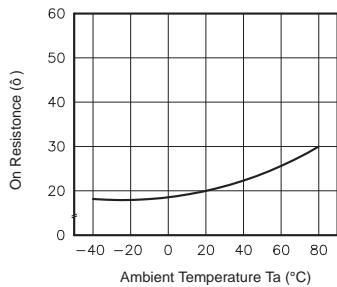


Fig.3 Turn on time vs. ambient temperature
Load voltage: 400V(DC)
LED current: 5mA
Continuous load current: 130mA(DC)

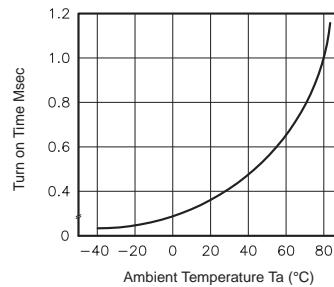


Fig.4 Turn off time vs. ambient temperature
LED current: 5mA; Load voltage:
400V(DC)
Continuous load current: 130mA(DC)

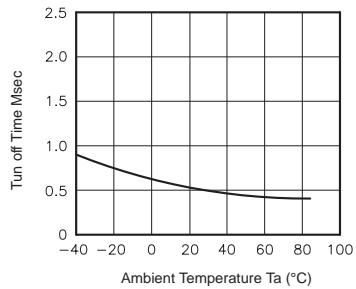


Fig.5 LED operate vs. ambient temperature
Load voltage 400V(DC)
Continuous load current: 130mA(DC)

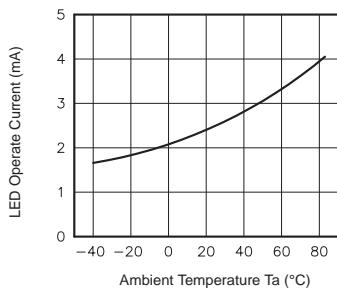


Fig.6 LED turn off current vs. ambient temperature
Load voltage 400V(DC)
Continuous load current: 130mA(DC)

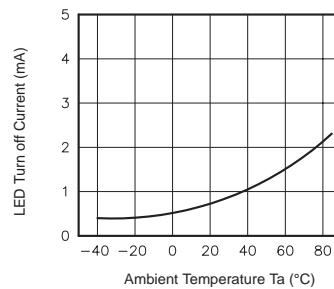


Fig.7 LED dropout voltage vs. ambient temperature
LED current: 5 to 50mA

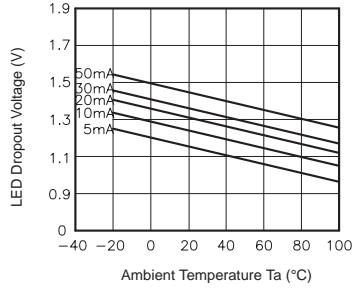


Fig.8 Voltage vs. current characteristics of output at MOS FET portion
Measured portion: across terminals 3 and 4 pin
Ambient temperature: 25°C

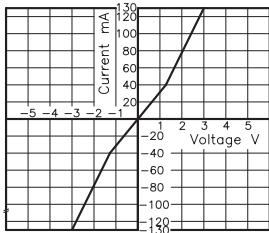


Fig.9 Off state leakage current
Across terminals 3 and 4 pin
Ambient temperature: 25°C

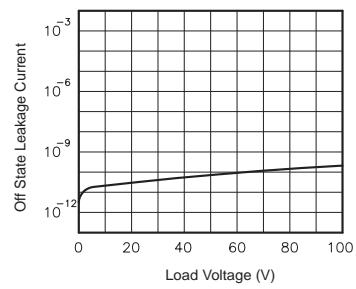


Fig.10 LED forward current vs. turn on time
Across terminals 3 and 4 pin;
Load voltage: 400V (DC);
Continuous load current: 130mA (DC);
Ambient temperature: 25°C

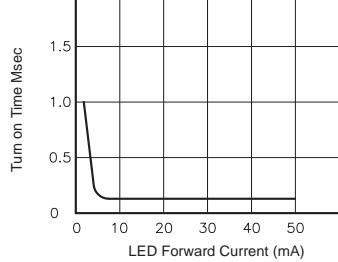


Fig.11 LED forward current vs. turn off time
Across terminals 3 and 4 pin;
Load voltage: 400V (DC);
Continuous load current: 130mA (DC);
Ambient temperature: 25°C

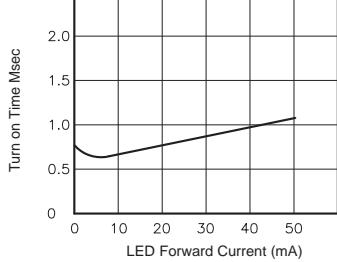


Fig.12 Applied voltage vs. output capacitance
Across terminals 3 and 4 pin
Frequency: 1MHz
Ambient temperature: 25°C

