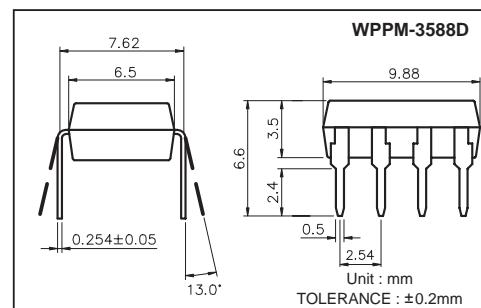




Features

1. Normally open, single pole single throw.
2. Control 350VAC 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, 3750VRMS.



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

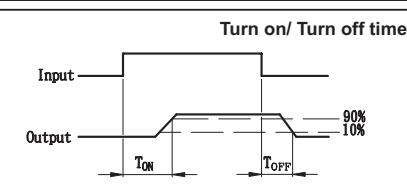
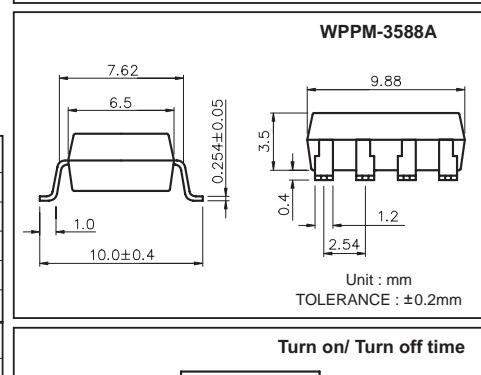
Absolute Maximum Ratings

(Ta=25°C)

Emitter (Input)	Detector (Output)
Reverse Voltage 5.0V	Output Breakdown Voltage ±350V
Continuous Forward Current 50mA	Continuous Load Current ±130mA
Peak Forward Current 1A	Power Dissipation 500mW
Power Dissipation 100mW	
Derate Linearly from 25°C 1.3mW/°C	

General Characteristics

Isolation Test Voltage 3750VRMS	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 Dissipation 550mW	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	I _{FON}	V _L = ±20V, I _L = 100mA, t = 10mS			5	mA
Recovery Input Current	I _{FOFF}	V _L = ±20V, I _L ≤ 5μA	0.2			mA
Detector (Output)						
Output Breakdown Voltage	V _B	I _B = 50μA	350			V
Output Off-State Leakage	I _{TOFF}	V _T = 100V, I _F = 0mA	0.2	1	10	μA
I/O Capacitance	C _{I/O}	I _F = 0, f = 1MHz	6			pF
ON Resistance	R _{ON}	I _L = 100mA, I _F = 10mA	20	30		Ω
Turn-On Time	T _{ON}	I _F = 10mA, V _L = ±20V	0.3	1.0		mS
Turn-Off Time	T _{OFF}	t = 10mS, I _L = ±100mA	0.7	1.5		mS

MOS Relay Schematic and Wiring Diagrams

Type	Schematic	Output configuration	Load	Connection	Wiring Diagrams
3588D & 3588A		2a	AC/DC	-	<p>(1) Two independent 1 Form A use</p> <p>(2) 2 Form A use</p>

Data Curve

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

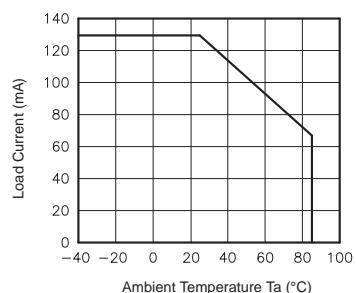


Fig.2 On resistance vs. ambient temperature
Across terminals 5,7 and 6,8 pin
LED current: 5mA
Continuous load current: 130mA(DC)

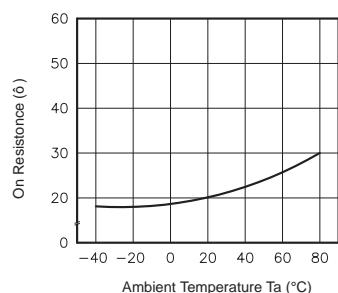


Fig.3 Turn on time vs. ambient temperature
Load voltage: 350V(DC)
LED current: 5mA
Continuous load current: 130mA(DC)

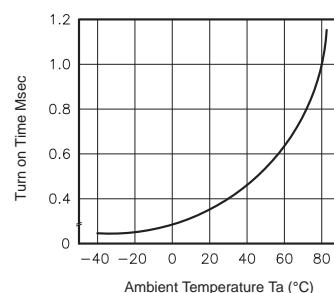


Fig.4 Turn off time vs. ambient temperature
LED current: 5mA; Load voltage:
350V(DC)
Continuous load current: 130mA(DC)

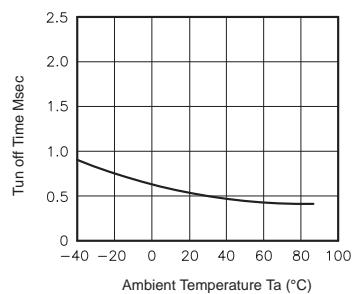


Fig.5 LED operate vs. ambient temperature
Load voltage: 350V(DC)
Continuous load current: 130mA(DC)

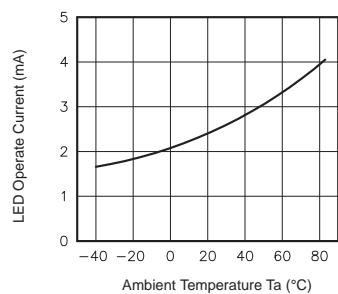


Fig.6 LED turn off current vs. ambient temperature
Load voltage: 350V(DC)
Continuous load current: 130mA(DC)

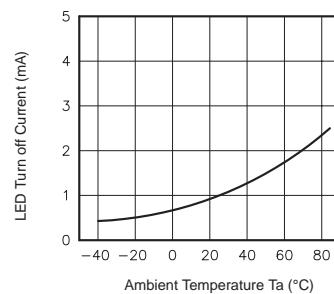


Fig.7 LED dropout voltage vs. ambient temperature
LED current: 5 to 50mA

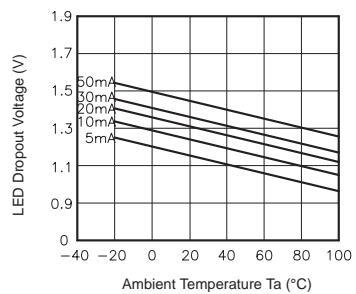


Fig.8 Voltage vs. current characteristics of output at MOS FET portion
Measured portion: across terminals 5,7 and 6,8 pin
Ambient temperature: 25°C

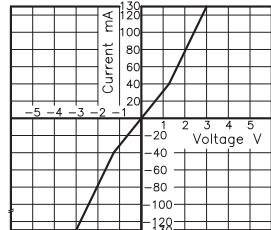


Fig.9 Off state leakage current
Across terminals 5,7 and 6,8 pin
Ambient temperature: 25°C

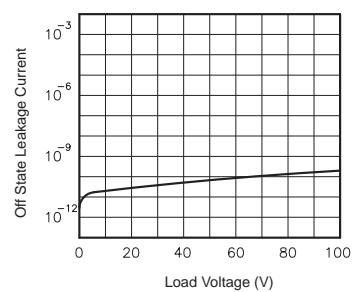


Fig.10 LED forward current vs. turn on time
Across terminals 5,7 and 6,8 pin;
Load voltage: 350V (DC);
Continuous load current: 130mA (DC);
Ambient temperature: 25°C

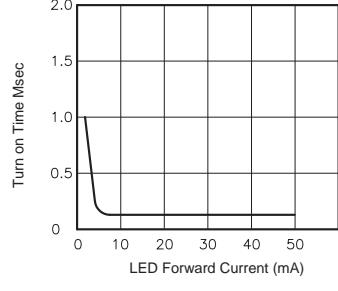


Fig.11 LED forward current vs. turn off time
Across terminals 5,7 and 6,8 pin;
Load voltage: 350V (DC);
Continuous load current: 130mA (DC);
Ambient temperature: 25°C

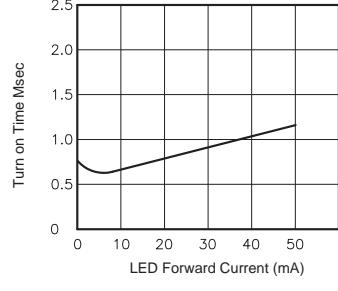


Fig.12 Applied voltage vs. output capacitance
Across terminals 5,7 and 6,8 pin
Frequency: 1MHz
Ambient temperature: 25°C

