



ISPA40

DESCRIPTION

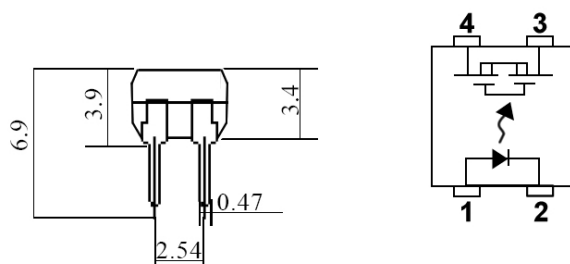
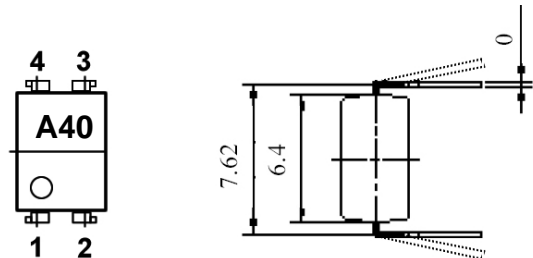
The ISPA40 is a 1-Form A solid state relay in a space saving 4 pin DIL package. The ISPA40 utilises MOSFET technology that is optically coupled to a highly efficient GaAlAs infrared light emitting diode.

FEATURES

- Options :-
 - 10mm lead spread - add G after part no.
 - Surface mount - add SM after part no.
 - Tape&reel - add SMT&R after part no.
- High Load Voltage(400V)
- High Isolation Voltage (3.75kVRMS)
- No moving parts
- High reliability
- Arc-Free without snubber circuits
- All electrical parameters 100% tested
- Custom electrical selections available

APPLICATIONS

- Telecommunications
- Industrial systems controllers
- Measuring instruments
- Signal transmission between systems of different potentials and impedances



ABSOLUTE MAXIMUM RATINGS (25°C unless otherwise specified)

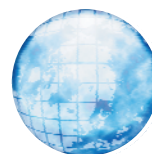
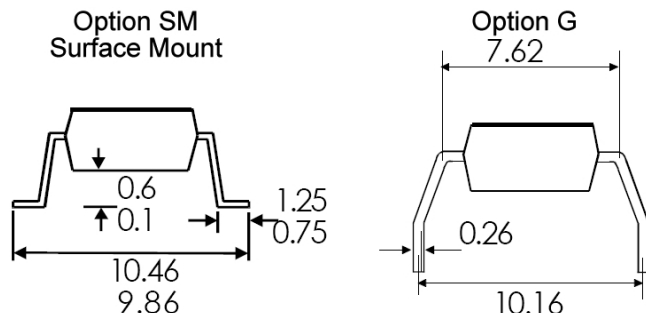
Storage Temperature	-40°C to + 100°C
Operating Temperature	-40°C to + 85°C
Lead Soldering Temperature (1/16 inch (1.6mm) from case for 10 secs)	260°C

INPUT DIODE

Forward Current	50mA
Reverse Voltage	5V

OUTPUT MOSFET

Load Voltage (AC peak or DC)	400V
Continuous Load Current	130mA
Peak Current (10mS)	300mA



ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ Unless otherwise noted)

PARAMETER		MIN	TYP	MAX	UNITS	TEST CONDITION
Input	Forward Voltage (V_F)	1.0		1.4	V	$I_F = 10\text{mA}$
	Reverse Current (I_R)			10	μA	$V_R = 5\text{V}$
Output	On state Resistance (R_{on})		20	30	Ohm	$I_F = 10\text{mA}, I_L = 130\text{mA}$
	Off state Leakage Current (I_{LK})			1	μA	$I_F = 0\text{mA}, I_V = 400\text{V}$
	Turn-On Time (T_{on})		0.2	0.5	mS	$I_F = 10\text{mA}, I_L = 130\text{mA}$
	Turn-Off Time (T_{off})		0.03	0.3	mS	$I_F = 10\text{mA}, I_L = 130\text{mA}$
	Ouput Capacitance		150		pF	$f = 1\text{MHz}$
Coupled	Capacitance		1.0		pF	$f = 1\text{MHz}$
	Isolation Voltage	3750			Vms	1 minute (Note 1)
	Isolation Resistance	5			Gohm	DC= 500V (Note 1)

Note 1 Measured with input leads shorted together and output leads shorted together.

Note 2 Special Selections are available on request. Please consult the factory.