



## ISPB20

### DESCRIPTION

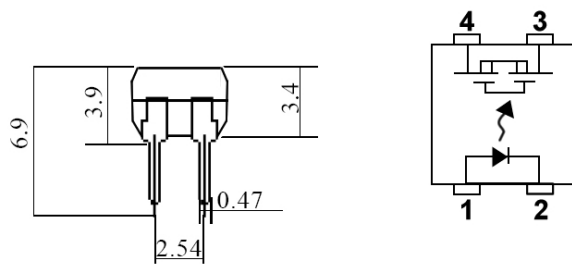
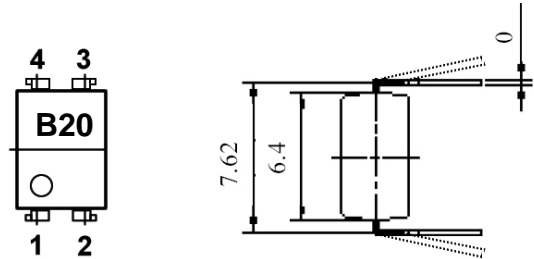
The ISPB20 is a 1-Form B solid state relay in a space saving 4 pin DIL package. The ISPB20 utilises MOSFET technology that is optically coupled to a highly efficient GaAlAs infrared light emitting diode.

### 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(200V)
- 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)

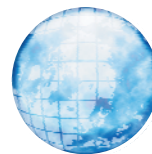
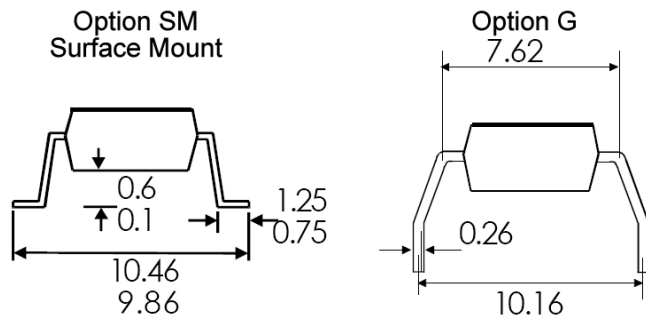
Storage Temperature	-40°C to + 100°C
Operating Temperature	-40°C to + 85°C
Lead Soldering Temperature (1/16 inch (1.6mm) from case for 10 secs)	260°C

### INPUT DIODE

Forward Current	50mA
Reverse Voltage	5V

### OUTPUT MOSFET

Load Voltage ( AC peak or DC )	200V
Continuous Load Current	100mA
Peak Current ( 10mS )	250mA



**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	$\mu\text{A}$	$V_R = 5\text{V}$
Output	On state Resistance ( $R_{on}$ )		17	30	Ohm	$I_F = 10\text{mA}, I_L = 100\text{mA}$
	Off state Leakage Current ( $I_{LK}$ )			1	$\mu\text{A}$	$I_F = 0\text{mA}, I_V = 200\text{V}$
	Turn-On Time ( $T_{on}$ )		0.2	1.0	mS	$I_F = 10\text{mA}, I_L = 100\text{mA}$
	Turn-Off Time ( $T_{off}$ )		0.04	2.0	mS	$I_F = 10\text{mA}, I_L = 100\text{mA}$
	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.