



ISA20

DESCRIPTION

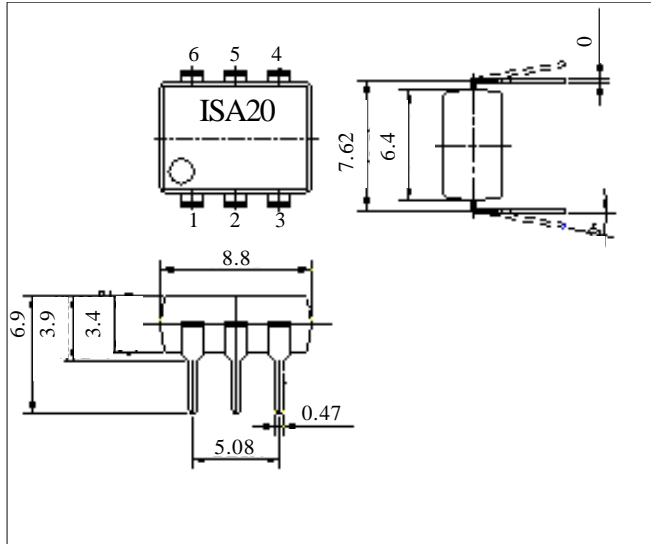
The ISA20 is a 1-Form A solid state relay in a 6 pin DIL package. The ISA20 utilises MOSFET technology that is optically coupled to a highly efficient GaAlAs infrared light emitting diode.

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 operating Current (200mA)
- High Isolation Voltage (3.75kV_{RMS})
- 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)

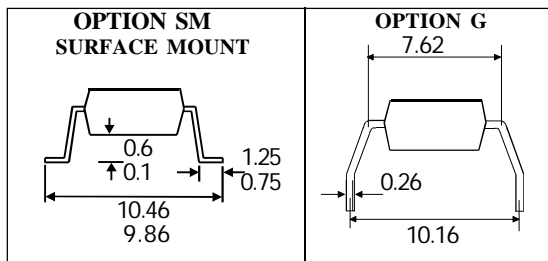
Storage Temperature _____ -40°C to + 100°C
Operating Temperature _____ -40°C to + 85°C
Lead Soldering Temperature
(1/16 inch (1.6mm) from case for 10 secs) 260°C

INPUT DIODE

Forward Current _____ 50mA
Reverse Voltage _____ 5V

OUTPUT MOSFET

Load Voltage (AC peak or DC) _____ 200V
Continous Load Current _____ 200mA
Peak Current (10mS) _____ 400mA



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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}) | | 6.0 | 10.0 | Ohm | $I_F=10\text{mA}, I_L=200\text{mA}$ |
| | Off state Leakage Current (I_{LR}) | | | 1 | μA | $I_F=0\text{mA}, I_V=200\text{V}$ |
| | Turn-On Time (T_{on}) | | 0.2 | 0.5 | mS | $I_F=10\text{mA}, I_L=200\text{mA}$ |
| | Turn-Off Time (T_{off}) | | 0.03 | 0.3 | mS | $I_F=10\text{mA}, I_L=200\text{mA}$ |
| | Ouput Capacitance | | 100 | | pF | $f=1\text{MHz}$ |
| Coupled | Capacitance | | 1.0 | | pF | $f=1\text{MHz}$ |
| | Isolation Voltage | 3750 | | | Vrms | 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.

