IS214

Small Outline Photo DMOS-FET Relay

DESCRIPTION

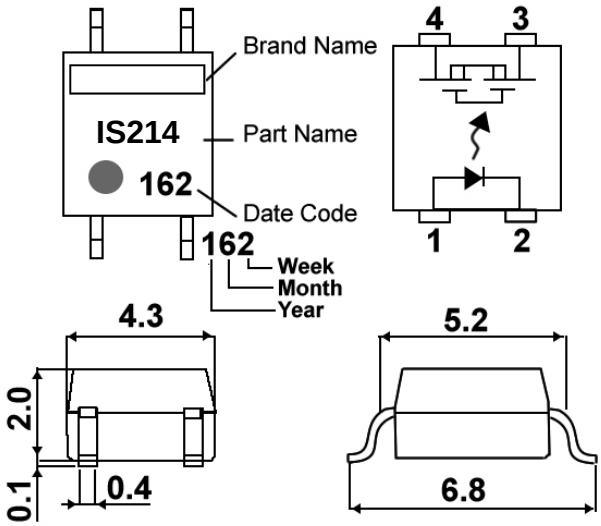
The IS214 is a miniature 1-Form A solid state relay in a 4 pin SOP package. The IS214 utilises MOSFET technology that is optically coupled to a highly efficient GaAlAs infrared light emitting diodes.

FEATURES

- SOP 4 pin package for compact PCB's
- Lower driver power requirements
- No moving parts
- High reliability
- Arc-Free without snubbing circuits
- 1500Vrms Input/Output voltage
- All electrical parameters 100% tested
- Custom electrical selections available

APPLICATIONS

- Telecommunications
- Industrial systems controllers
- Measuring instruments
- Security Equipment
- 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	260°C

INPUT DIODE

Forward Current	50mA
Reverse Voltage	5V
Power Dissipation	75mW

OUTPUT MOSFET

Load Voltage	80V
Load Current	120mA
Output Power dissipation	200mW

POWER DISSIPATION

Total Power Dissipation	250mW
(derate linearly 4.17mW/°C above 25°C)	

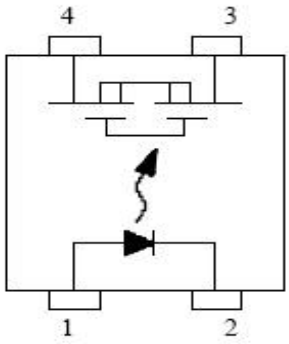
ISOCOM COMPONENTS LTD
Unit 25B, Park View Road West,
Park View Industrial Estate
Hartlepool, TS25 1YD England Tel: (01429)863609
Fax : (01429) 863581 e-mail sales@isocom.co.uk
http://www.isocom.com

ISOCOM COMPONENTS ASIA LTD
Hong Kong Office, 1712-1713
Laurels Industrial Centre, 32 Tai Yau Street,
San Po Kong, Kowloon, Hong Kong.
Tel: +852 2995 9217 Fax : +852 8161 6292
e-mail sales@isocom.com.hk

ELECTRICAL CHARACTERISTICS (T_A= 25°C Unless otherwise noted)

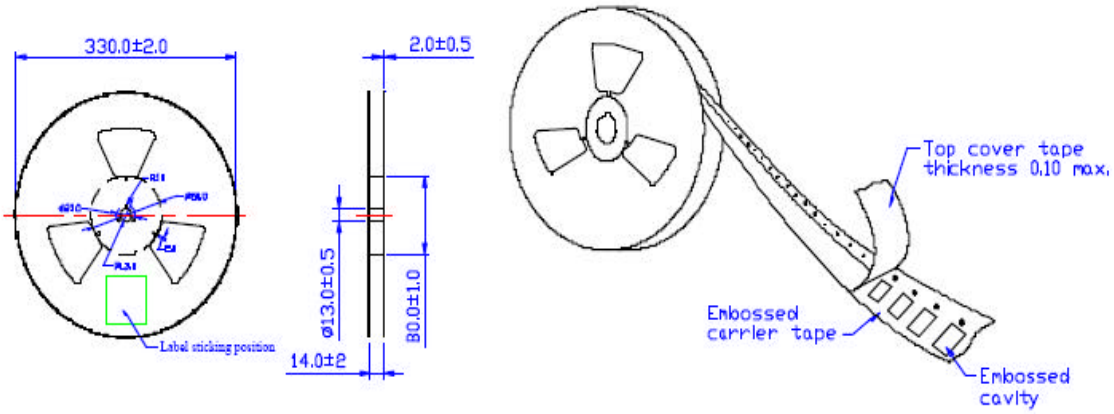
PARAMETER		MIN	TYP	MAX	UNITS	TEST CONDITION
Input	Forward Voltage (V_F)		1.2	1.4	V	I_F = 10mA
	Reverse Current (I_R)			10	µA	V_R = 5V
Output	On State Resistance (Ron)		8	12	Ω	I_F =5mA, I_L =100mA
	Off State Leakage Current (I_{Leak})			1	uA	V_L = Rating
	Ouput Capacitance (C_{Out})		17		pF	V_L = 0, f = 1MHz
Coupled	Input Control Current (I_{FON})		0.5	3.0	mA	
	Recovery LED Current (I_{FOFF})		0.35	0.5	mA	
	Recovery LED Voltage (V_{OFF})	0.5			V	
	Turn On Time (T_{ON})		0.15	0.5	mS	I_F =5mA, I_L =100mA
	Turn Off Time (T_{OFF})		0.05	0.2	mS	I_F =5mA, I_L =100mA
	Input to Output Isolation (V_{ISO})	1500			V	See note 1

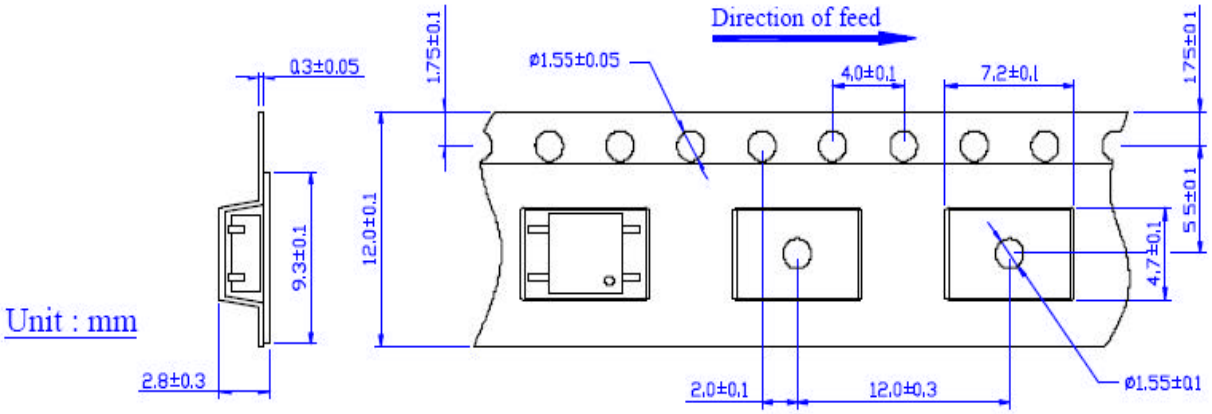
Note 1 Measured with input leads shorted together and output leads shorted together.
Note 2 Special Selections are available on request. Please consult the factory.



1 LED Anode
2 LED Cathode
3 Drain MOSFET
4 Drain MOSFET

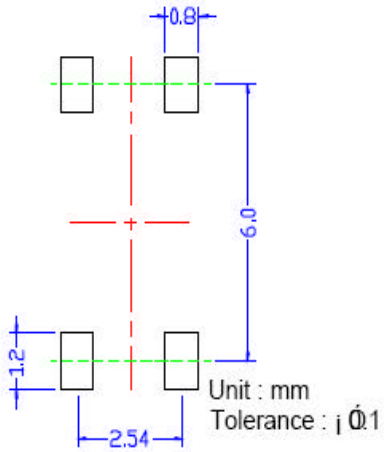
Taping Specifications for Surface Mount Devices





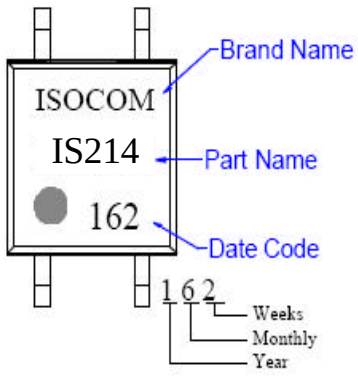
Recommended Mounting Pad

(Top view)



Marking

(Each photo MOS Relay shall be marked with the following information)



Note:
1. There shall be leader of 230 mm minimum which may consist of carrier and or cover tape follower by a minimum of 160 mm of carrier tape sealed with cover tape.
2. There shall be a minimum of 160 mm of empty component pockets sealed with cover tape.
3. Devices are pockets in accordance with EIA standard EIA-481-A and specifications given above.
4. Packaging: 2,000pcs per reel, 2 reel per box, 5 boxes per carton.