

OPI 2000M

High Speed Opto Isolator

Surface Mount

The OPI 2000M High Speed Optically Coupled Isolator consists of a High Speed Infrared emitter coupled to a silicon photo I.C. The unit is designed for applications requiring high voltage isolation between input & output meeting BASEEFA requirements.

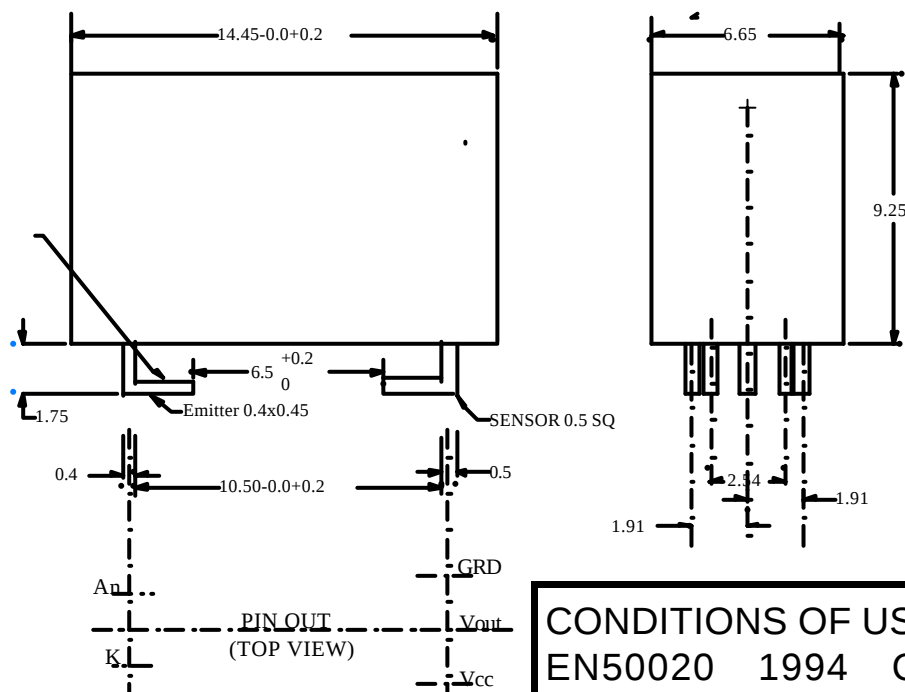
- Surface Mount in Tape & Reel
- 10KV isolation
- High Speed 2Mb/sec.
- Low Propagation Delay
- Short housing
- Designed and manufactured to EN50020 1995 and EN50014 1998

ATEX CERTIFICATE
BAS01ATEX1285U/1



MECHANICAL DATA

SURFACE MOUNT LEAD FORM
CONDITIONS OF USE APPLY



CONDITIONS OF USE APPLY
EN50020 1994 CLAUSES
6.4.9 AND 8.8

BEDFORD OPTO TECHNOLOGY LTD
LINDSAYLANDS, BIGGAR, LANARKSHIRE, ML12 6NR
 Tel: +44 (0) 1899 221221 Fax: +44 (0) 1899 221009
 Website: bot.co.uk E-mail: bill@bot.co.uk

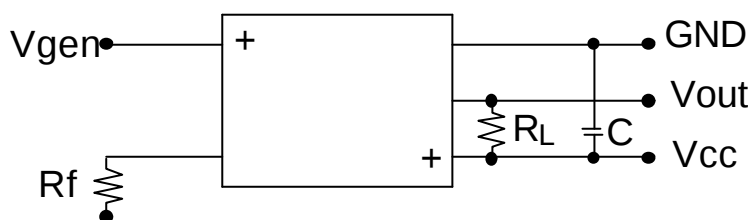
ABSOLUTE MAXIMUM RATINGS (25°C unless otherwise noted)

INPUT DIODE FORWARD DC CURRENT REVERSE DC VOLTAGE POWER DISSIPATION	100mA 5 Volts 150mW (ii)
OUTPUT IC MAX SUPPLY VOLTAGE POWER DISSIPATION	7 Volts 165mW
OPERATING TEMP	-40°C TO +80°C
STORAGE TEMP	-40°C TO +85°C
INPUT-TO-OUTPUT ISOLATION VOLTAGE	± 10 KV DC (i)

- i) Measured with the input leads and output leads shorted together for one min.
ii) Thermal resistance 450 K/W

Whilst the devices are capable of operating continually at the noted elevated temperatures users should be aware of the possibility of the need to increase the diode current to trigger the device over long periods at high temperatures & currents.

CIRCUIT



$$R_L = 560 \text{ ohm} \quad C = 0.01 \mu\text{F}$$

Packing

Waffle Trays - 100 per tray 290mm x 200mm.

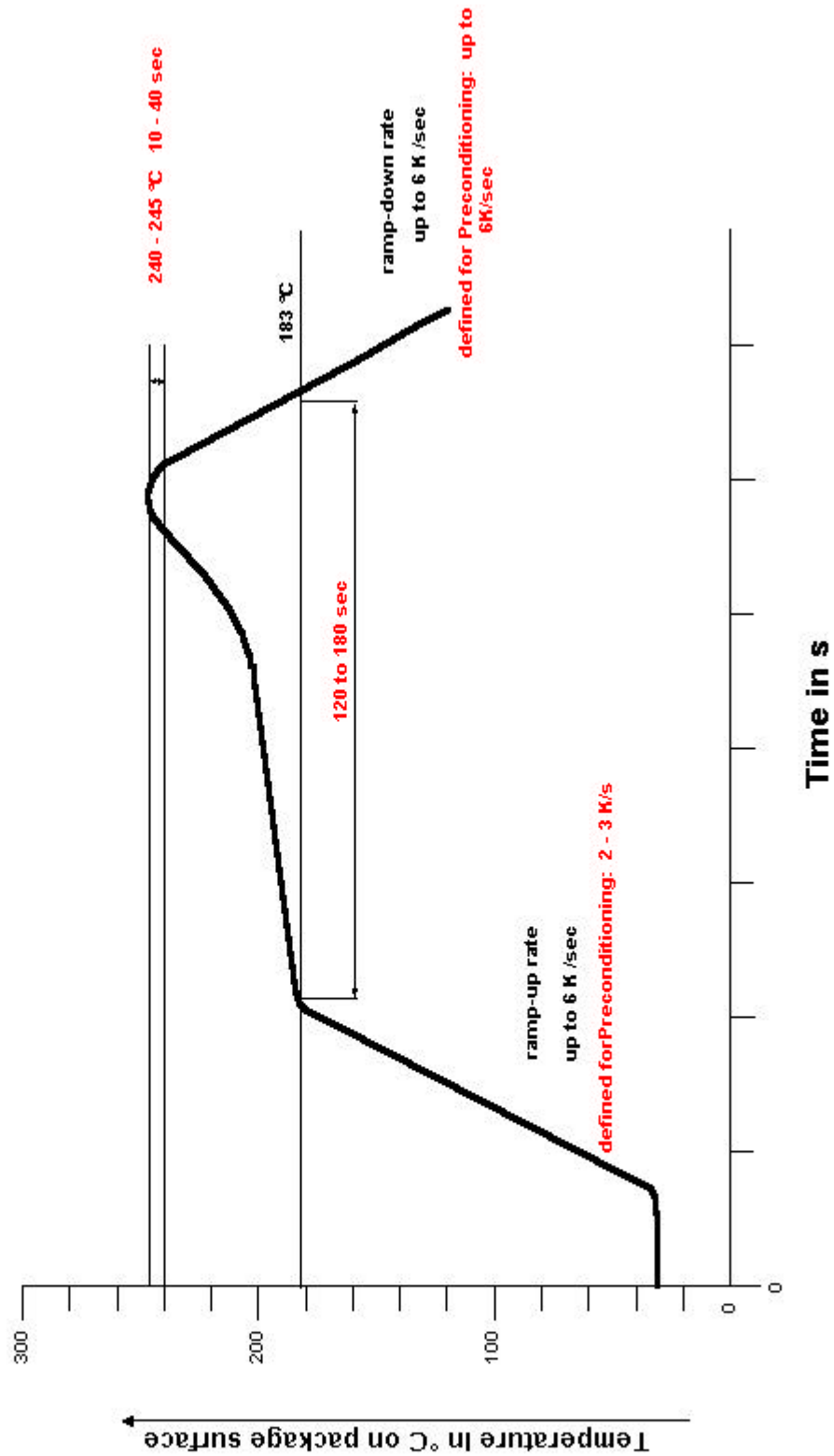
Tape & Reel - 300 Devices per 13" Diam Reel with 7" Hub 24mm Wide tape.

BEDFORD OPTO TECHNOLOGY LTD
LINDSAYLANDS, BIGGAR, LANARKSHIRE, ML12 6NR

Tel: +44 (0) 1899 221221 Fax: +44 (0) 1899 221009

Website: bot.co.uk E-mail: bill@bot.co.uk

IR Reflow soldering profile conforming to IPC9501



BEDFORD OPTO TECHNOLOGY LTD
LINDSAYLANDS, BIGGAR, LANARKSHIRE, ML12 6NR
 Tel: +44 (0) 1899 221221 Fax: +44 (0) 1899 221009

OPTO ELECTRONIC DATA (TA = 25°C)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	TEST CONDITIONS
INPUT DIODE						
Forward Voltage	V _F	-	1.35	1.6	V	I _F =100mA tp=20mS
Reverse Voltage	V _R	5.0	-	-	V	I _r = 100uA
OUTPUT IC (Vcc=4.75 to 5.25)						
High level Output Current	I _{CH}		-	100	uA	I _c = 10 uA
Low Level Output Voltage	V _{OL}		-	0.6	V	I _F =10mA I _{OL} =2.6mA
High Level Supply Current	I _{CCH}			15	mA	I _F =0
Low Level Supply Current	I _{CCL}			18	mA	I _F =7.5mA
COUPLED(Vcc=5volts)						
Propagation Delay to Low Output	t _{PLH}			800	nSecs	R _L =560ohms C=0.01uF
Propagation Delay to High Output	t _{PHL}			800	nSecs	ditto
Input/Output Isolation Voltage	V _{i-o}	4kV			Volts	Input and output leads shorted

OPTO ELECTRONIC SOLUTIONS

BEDFORD OPTO TECHNOLOGY LTD
LINDSAYLANDS, BIGGAR LANARKSHIRE, ML12 6NR
 Tel: +44 (0) 1899 221221 Fax: +44 (0) 1899 221009
 Website: bot.co.uk E-mail: bill@bot.co.uk

ESSENTIAL HEALTH AND SAFETY INFORMATION IN ACCORDANCE WITH ATEX DIRECTIVE 94/9/EC

INFORMATION CONTAINED IN THIS DATASHEET IS DEEMED TO CONFORM TO THE ABOVE DIRECTIVE AND IS SUPPLIED IN RELATION TO THE FOLLOWING SHIPMENT: -

CUSTOMER_____

ORDER NUMBER_____

INVOICE NUMBER_____

TYPE NUMBER_____

QUANTITY_____

BATCH NUMBER_____

DATE CODE_____

DATE OF SHIPMENT_____