

#### This component is RoHS compliant

## OPI1264 Series Optically Coupled Isolators ATEX &IECEx CERTIFIED

The OPI1264A/B/C/D are a family of optically coupled isolators, each consisting of a infrared light emitting diode, coupled to an NPN silicon phototransistor sealed in an injection moulded plastic housing. This series is designed for applications requiring high voltage isolation between input and output.

All electrical parameters are 100% tested by manufacturing. Specifications are guaranteed to a 0.65% AQL  $\,$ 

• 10KV electrical rating

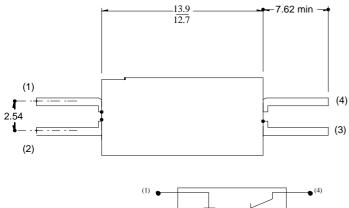
High current transfer ratio-100% min @1mA

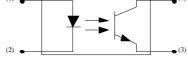


#### CERTIFICATE BAS01ATEX1278U/2

Confirmed conform to:-EN60079-0:2006 EN61241-0:2006 EN60079-11:2007 EN61241-11:2006 EN60079-26:2004 Conditions of use apply:- See 'Schedule of limitations' on certificate

### **MECHANICAL DATA**

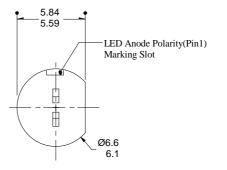


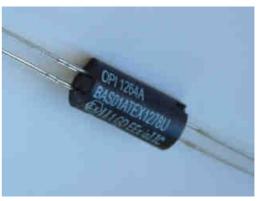




#### CERTIFICATE IECEX BAS 06.0021U/1

Designed and manufactured to:-IEC 60079-0: 2000 Edition 3.1 IEC 60079-11 :1999 Edition 4 IEC 60097-26 :2004 Edition 1 Conditions of use apply:- See 'Schedule of limitations' on certificate.





#### BEDFORD OPTO TECHNOLOGY LTD 1,BIGGAR BUSINESS PARK, BIGGAR,LANARKSHIRE ML12 6FX Tel: +44 (0) 1899 221221 Fax: +44 (0) 1899 221009 Website: bot.co.uk E-mail: bill@bot.co.uk

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#### ABSOLUTE MAXIMUM RATINGS (25 °C unless otherwise noted)

INPUT DIODE FORWARD DC CURRENT REVERSE DC VOLTAGE POWER DISSIPATION	50mA (3) 2V 100mW (4)
OUTPUT PHOTOTRANSISTOR COLLECTOR-EMITTER VOLTAGE EMITTER-COLLECTOR VOLTAGE POWER DISSIPATION	30 V 5 V 100 mW (5)
OPERATING TEMP	-40°C TO +85°C
STORAGE TEMP	-40°C TO +85°C
INPUT-TO-OUTPUT ISOLATION VOLTAGE	+10KV DC (1)
LEAD SOLDERING TEMP (2) 1.6mm from case for 5sec with soldering iron	240°C

NOTES

- 1 Measured with input diode leads shorted together and output leads shorted together.
- 2 RMA Flux is recommended. Duration can be extended to 10 sec. max. when flow
- soldering.
  Derate linearly 0.73 mA/°C above 25°C
- 4 Derate linearly 0.75 mR/ C above 25°C
- 5 Derate linearly 1.67 mW/°C above 25°C

Whilst the devices are capable of operating continually at the noted elevated temperatures users should be aware of the possibility of a reduction in CTR over long periods at high temperatures & currents.

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<b>OPTO ELECTRONIC DATA</b> (TA = 25°C)			is Ro	ponent	Рб	
PARAMETER	SYMBOL	MIN	ТҮР	MAX	UNITS	TEST CONDIS- TIONS
INPUT DIODE						
Forward Voltage	VF			1.5	V	If = 20mA
Reverse Current	Ir			100	μΑ	Vr = 2V
OUTPUT PHOTOTRANSISTOR			I	1		1
Collector-Emitter Breakdown Voltage	V(BR)CEO	30			V	Ic = 1mA If = 0
Emitter-Collector Breakdown Voltage	V(BR)ECO	5			V	Ie = 100μA
Collector-Emitter Dark Current	Iceo			100	nA	Vce = 10V
COUPLED CHARACTERISTICS				•		
DC Current transfer ratio	IC/IF					
OPI1264A		25			%	If=10mA Vce=5V
OPI1264B		50			%	If=10mA Vce=5V
OPI1264C		100			%	If=10mA Vce=5V
OPI1264D		100			%	If=1mA, Vce=5V
Isolation Voltage	Viso	10			KV	See Note
Collector-emitter saturation volt- age	VCE(SAT)			0.4	V	If=10mA, Ic=1.6mA
Turn-on time	t on		5		μS	Ic=10mA, Vcc=10V, RL=100ohm
Turn-off time	<b>t</b> off		5		μS	Ic=10mA, Vcc=10V, RL=100ohm

NOTE:

Measured with input diode leads shorted together and output leads shorted together. (Sample testing only).

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## CONFORMITY STATEMENT OPI1264 SERIES



# Manufacturer:-BEDFORD OPTO TECHNOLOGY LTDAddress:-1 Biggar Business Park, Market Road, Biggar,<br/>Lanarkshire, ML12 6FX, Scotland

## **Directive 94/9/EC**

EC-Type Examination Certificate:-BAS01ATEX1278U – Latest supplement BAS01ATEX1278U/2 issued 30.10.07

Provisions of the Directive fulfilled by the component:-GroupII Category 1GD EexiaIIC

Notified Body for EC-Type Examination & Production:- BaseefaLtd. - No. 1180

Baseefa Ltd. Rockhead Business Park, Staden Lane, Buxton, Derbyshire SK17 9RZ, England

Tel:- +44 (0)1298 766600 Fax:- +44 (0)1298 766601 e-mail:- info@baseefa.com

Harmonised Standards used:-EN60079-0:2006 EN60079-11:2007 EN61241-11:2006

Other Standards used:-

EN60079-26:2004 – (confirmed by Notified Body unit complies in all re spects) EN61241-0:2006 – (State of the Art – intended for harmonisation)

On Behalf of Bedford Opto Technology Ltd., I declare that, the date the component accompanied by this statement is placed on the market, the component conforms with all technical and regulatory rerquirements of the ATEX Directive 94/9/EC.

Mr R.W.Stott Managing Director