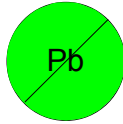


These components are RoHS compliant



OPI 1000L Series

Optically Coupled Isolators

Surface Mount Low Profile

ATEX & IECEX CERTIFIED

The OPI 1000L A through E are a series of Optically Coupled Isolators each consisting of a Infrared emitter coupled to a silicon photo transistor. The series is designed for applications requiring high voltage isolation between input & output.

- Surface Mount configuration in Tape & Reel
 - Low Profile
- High Current Transfer ratio– 40% min @ 1mA If
10KV isolation



CERTIFICATE ATEX BAS01ATEX1278U/1

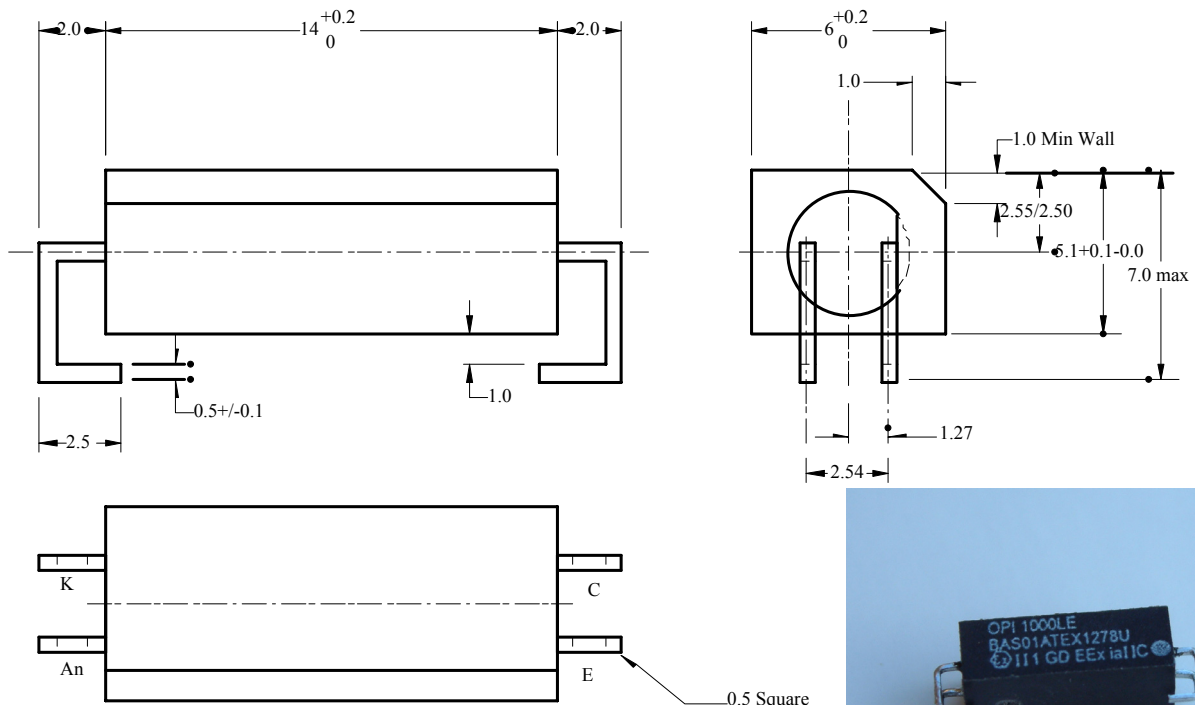
Designed and manufactured to:- EN50020 1994
EN50014 1997
EN50284 1999
Conditions of use apply:- EN50020 1994 clauses 6.4.9 and 8.8



CERTIFICATE IECEX BAS 06.0021U

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.

MECHANICAL DATA



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

ABSOLUTE MAXIMUM RATINGS (25°C unless otherwise noted)

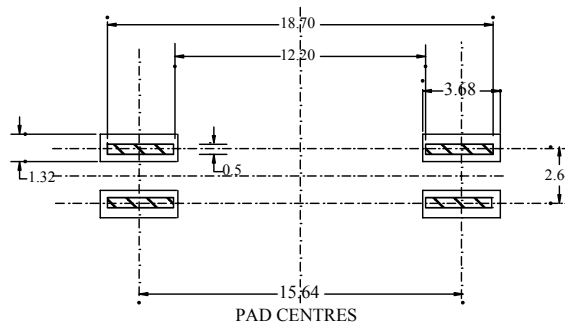
OPI 1000L

INPUT DIODE FORWARD DC CURRENT REVERSE DC VOLTAGE POWER DISSIPATION	100mA 5 Volts
OUTPUT TRANSISTOR COLLECTOR-EMITTER VOLTAGE COLLECTOR CURRENT POWER DISSIPATION	35 Volts 15 mA
OPERATING TEMP	-25°C TO +100°C
STORAGE TEMP	-25°C TO +100°C
INPUT-TO-OUTPUT ISOLATION VOLTAGE	± 10 KV DC (i)

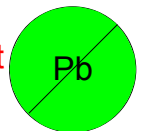
- i) Measured with the input leads and output leads shorted together for one min.
- ii) Thermal resistance 375 K/W
- iii) Thermal resistance 450 K/W

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

RECOMMENDED FOOTPRINT



This component is RoHS compliant



Packing

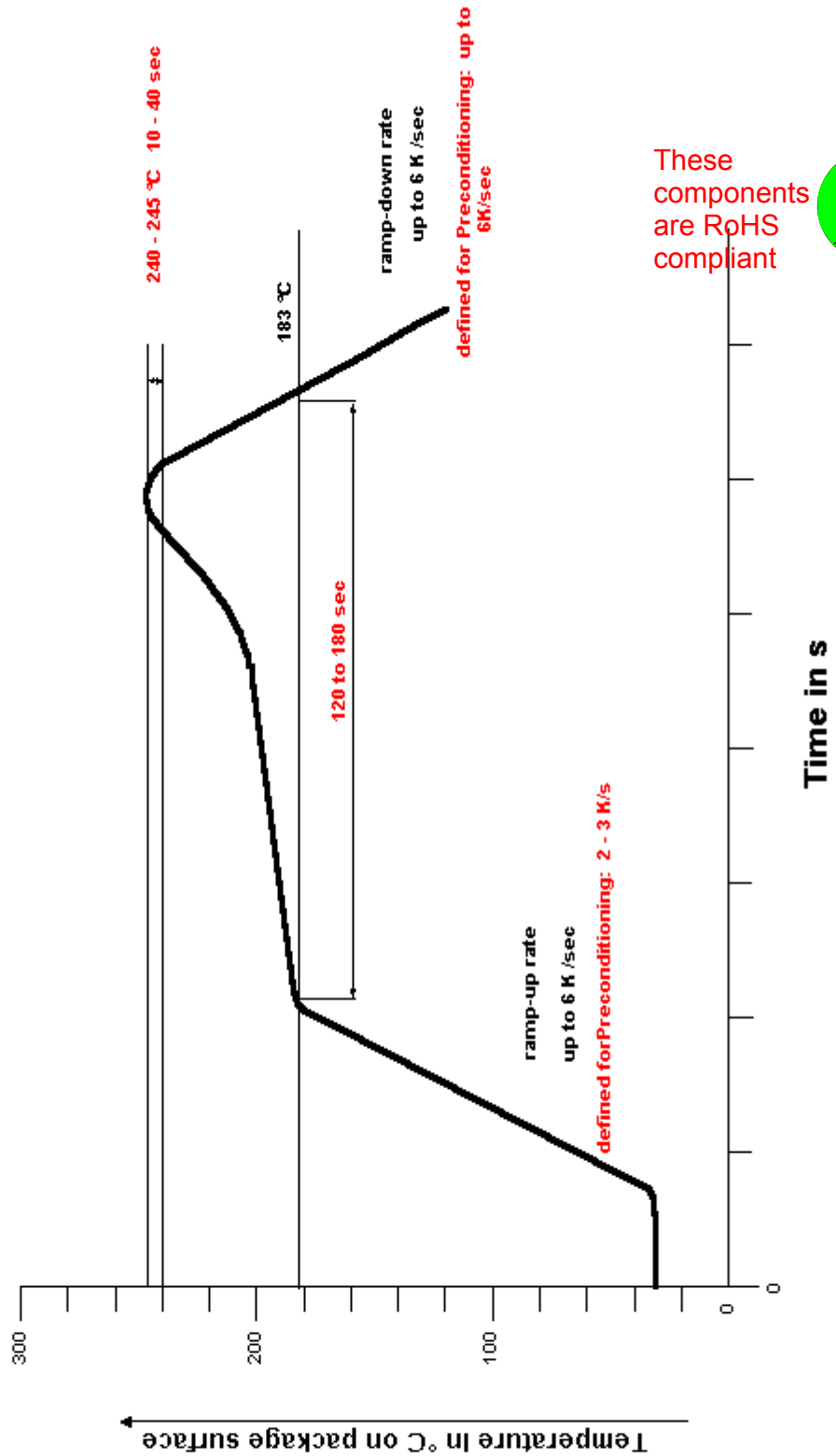
Waffle Trays - 100 per tray 290mm x 200mm.

Tape & Reel - 400 Devices per 13" Diam Reel with 7" HuB 32mm Wide tape.

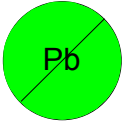
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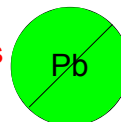
IR Reflow soldering profile conforming to IPC9501



These components are RoHS compliant



These components are RoHS compliant



PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	TEST CONDITIONS
INPUT DIODE						
Forward Voltage	V _F	-	-	1.3	V	I _f = 20mA
Reverse Voltage	V _R	5.0	-	-	V	I _r = 100uA
OUTPUT TRANSISTOR						
Collector-Emitter Breakdown Voltage	BV _{ceo}	35	-	-	V	I _c = 10 uA
Collector-Emitter Leakage Current	I _{ceo}	OPI1000IE	-	10	nA	V _{ce} = 30 V
		OPI1000IA to D	-	100	nA	V _{ce} = 10 V
Emitter-Collector Breakdown	BV _{eco}	5.0	-	-	V	I _c = 100uA
COUPLED PAIR						
DC Current Transfer Ratio	I _c /I _F					
OPI 1000L A	-	25	-	-	%	I _f = 10 mA V _{ce} = 5 V
OPI 1000L B	-	50	-	-	%	I _f = 10 mA V _{ce} = 5 V
OPI 1000L C	-	100	-	-	%	I _f = 10 mA V _{ce} = 5 V
OPI 1000L E	-	40	-	-	%	I _f = 1mA V _{ce} = 5 V
Isolation Voltage	V _{ISO}	10	-	-	KV	-
Collector-emitter saturation voltage	V _{CE(SAT)}	-	-	0.4	V	I _f = 10 mA, I _c = 1.6mA
Turn-on time	t _{on}	-	8	-	uS	I _c = 2mA
Turn-off time	t _{off}	-	8	-	uS	V _{ce} = 5V R _L = 100ohm