

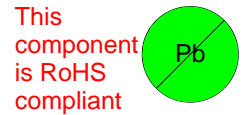
# OPI 3000P

## Optically Coupled Isolator

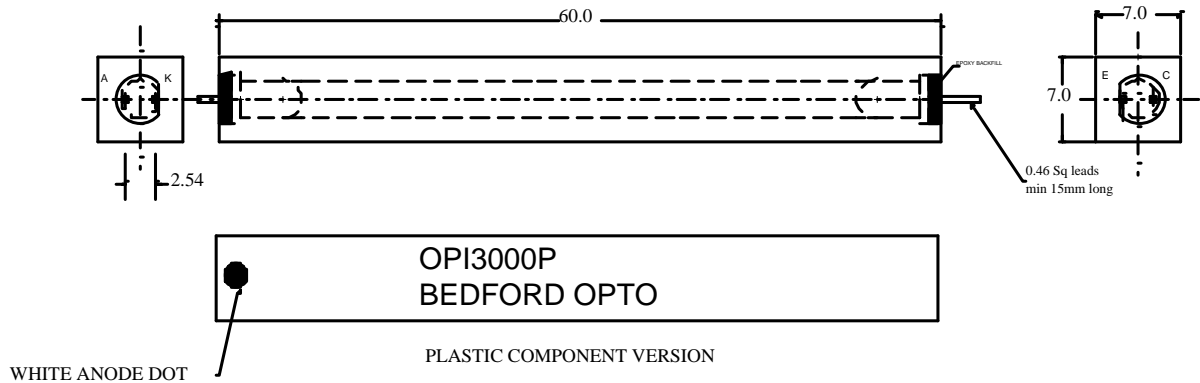
### 30kV Isolation

The OPI 3000P Optically Coupled Isolator consist of a Infrared emitter coupled to a silicon photo transistor. The series is designed for applications requiring high voltage isolation between input & output.

- 30kV Isolation
- High current transfer ratio,>50% @10mA
- Metal can version OPI30000MC with base connection also available.



### MECHANICAL DATA



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

<b>INPUT DIODE</b>	
FORWARD DC CURRENT	100mA
REVERSE DC VOLTAGE	5 Volts
POWER DISSIPATION	165mW (ii)
<b>OUTPUT TRANSISTOR</b>	
COLLECTOR-EMITTER VOLTAGE	35 Volts
COLLECTOR CURRENT	15 mA
POWER DISSIPATION	165mW (iii)
<b>OPERATING TEMP</b>	-25°C TO +100°C
<b>STORAGE TEMP</b>	-25°C TO +100°C
<b>INPUT-TO-OUTPUT ISOLATION VOLTAGE</b>	±30KV DC (i)
<b>SOLDERING TEMP 1.6mm from body max 5secs</b>	240 °C

**BEDFORD OPTO TECHNOLOGY LTD**  
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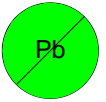
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- i) Based on mechanical spacing, not measured
- ii) Thermal resistance 375 K/W
- iii) Thermal resistance 450 K/W

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.

This component is RoHS compliant



## OPTO ELECTRONIC DATA (TA = 25°C)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	TEST CONDITIONS
<b>INPUT DIODE</b>						
Forward Voltage	V <sub>F</sub>	-	-	1.3	V	I <sub>f</sub> = 20mA
Reverse Voltage	V <sub>R</sub>	5.0	-	-	V	I <sub>r</sub> = 100uA
<b>OUTPUT TRANSISTOR</b>						
Collector-Emitter Breakdown Voltage	BV <sub>ceo</sub>	35	-	-	V	I <sub>c</sub> = 10 uA
Collector-Emitter Leakage Current	I <sub>ceo</sub>	-	-	10	nA	V <sub>ce</sub> = 10 V
Emitter-Collector Breakdown	BV <sub>eco</sub>	5.0	-	-	V	I <sub>e</sub> = 100uA
<b>COUPLED PAIR</b>						
DC Current Transfer Ratio	I <sub>c</sub> /I <sub>f</sub>					
<b>OPI 3000P</b>	-	50	-	-	%	I <sub>f</sub> = 10 mA V <sub>ce</sub>
Isolation Voltage	V <sub>ISO</sub>	30	-	-	KV	-
Collector-emitter saturation voltage	V <sub>CE(SAT)</sub>	-	-	0.4	V	I <sub>f</sub> = 10 mA,
Turn-on time	t <sub>on</sub>	-	8	-	uS	I <sub>c</sub> =2mA
Turn-off time	t <sub>off</sub>	-	8	-	uS	V <sub>cc</sub> = 5V

### OPTO COUPLER RANGE

OPI110 TUBULAR 10kV ATEX CERTIFIED

OPI1264 TUBULAR 10kV ATEX CERTIFIED

OPI1000L SURFACE MOUNT ATEX CERTIFIED

OPI2000M HIGH SPEED SURFACE MOUNT ATEX CERTIFIED

OPI2000MK HIGH SPEED HIGH CMR

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