

OPI 2000 High Speed Opto Isolator

The OPI 2000 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 ATEX requirements.

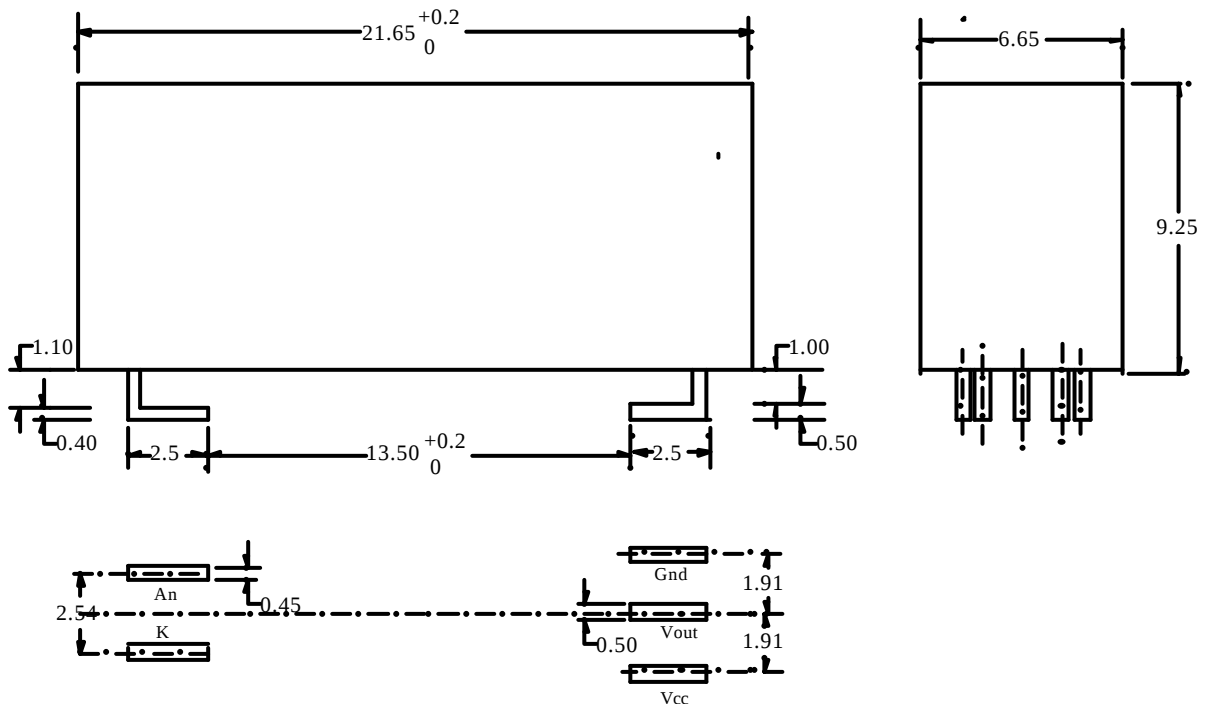
- Surface Mount configuration available .
- 10KV isolation
- High Speed 2Mb/sec.
- Low Propagation Delay



ALSO AVAILABLE IN THIS SERIES:-

OPI2000M ATEX CERTIFIED SURFACE MOUNT
OPI2000MK INTEGRAL ELECTROMAGNETIC
EARTHED SCREEN OVER SENSOR FOR HIGH
COMMON MODE REJECTION

MECHANICAL DATA



BEDFORD OPTO TECHNOLOGY LTD
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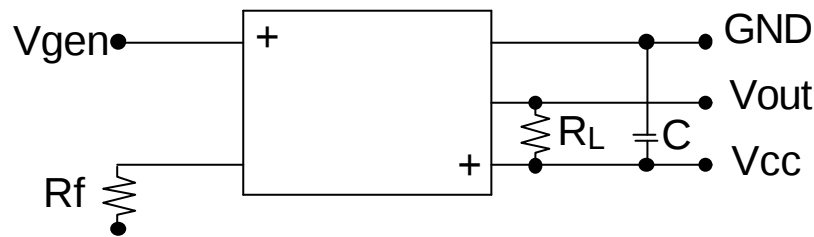
ABSOLUTE MAXIMUM RATINGS (25°C unless otherwise noted)

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 +70°C
STORAGE TEMP	-40°C TO +85°C
INPUT-TO-OUTPUT ISOLATION VOLTAGE	±10KV DC (i)
LEAD SOLDERING TEMP 2mm from body 5 secs max	260°C

- 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



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

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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 t _p =20mS
Reverse Voltage	V _R	5.0	-	-	V	I _r = 100uA
OUTPUT IC (V_{cc}=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 =10mA
COUPLED(V_{cc}=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

OPTO ELECTRONIC SOLUTIONS

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