

OPI 2000MK High Speed Opto Isolator

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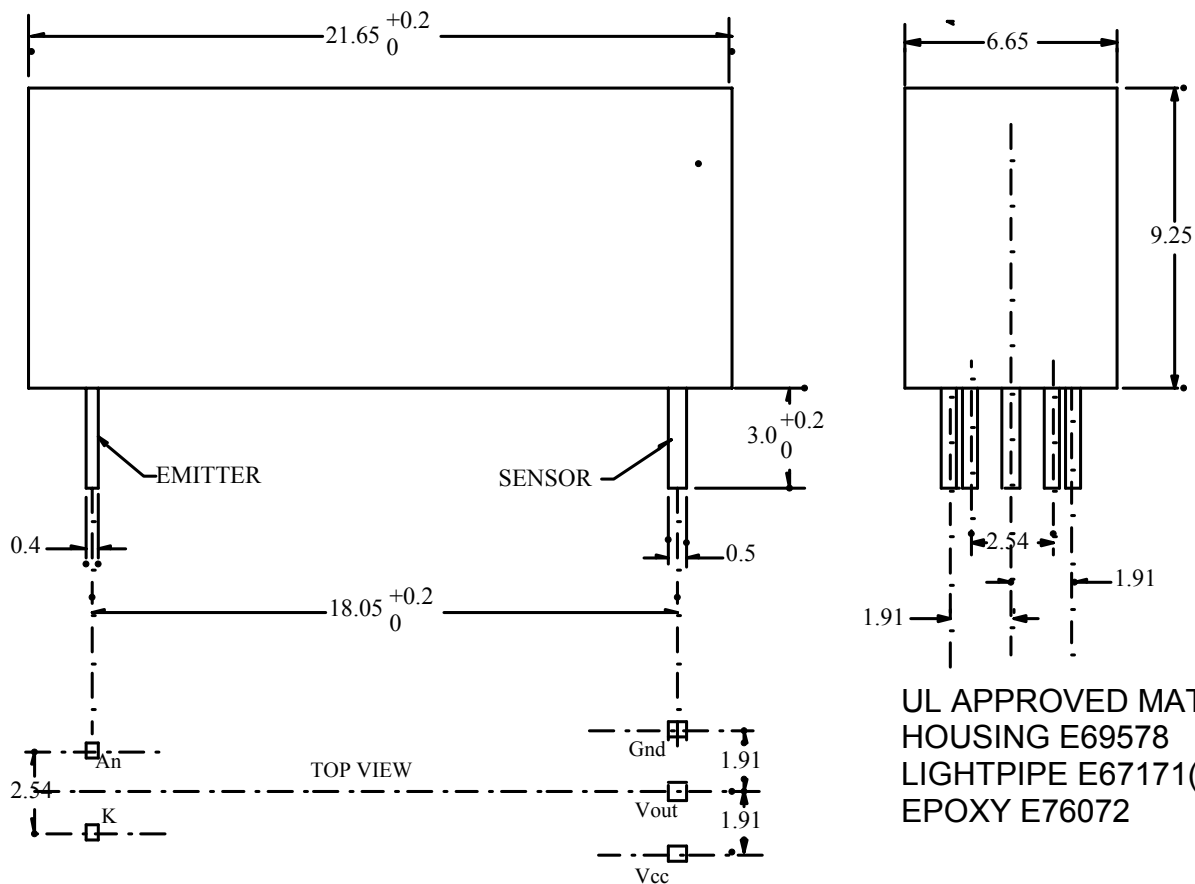
The OPI 2000MK High Speed Optically Coupled Isolator consists of a High Speed Infrared emitter coupled to a silicon photo I.C. The unit is designed for applications requiring high voltage isolation between input & output requirements.

- The Opto Logic sensor has a metal screen connected to the ground lead for High Common mode rejection.
- 10KV isolation
- High Speed 2Mb/sec.
- Low Propagation Delay



OTHER COUPLERS IN THE SERIES:-
OPI2000M ATEX CERTIFIED SURFACE MOUNT
OPI2000 AS THE OPI2000MK WITHOUT MASK

MECHANICAL DATA



UL APPROVED MATERIALS
HOUSING E69578
LIGHTPIPE E67171(m)
EPOXY E76072

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ABSOLUTE MAXIMUM RATINGS (25°C unless otherwise noted)

OPI 2000MK

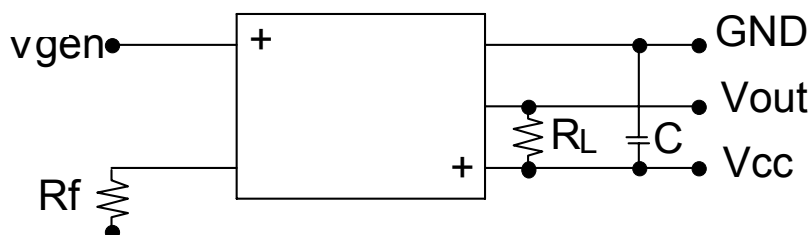
INPUT DIODE FORWARD DC CURRENT REVERSE DC VOLTAGE POWER DISSIPATION	100mA 5 Volts 150mW (ii)
OUTPUT IC MAX SUPPLY VOLTAGE POWER DISSIPATION	7 Volts 165mW
OPERATING TEMP	-40°C TO +70°C
STORAGE TEMP	-40°C TO +85°C
LEAD SOLDERING TEMP 2mm from body 5 secs max	260°C
INPUT-TO-OUTPUT ISOLATION VOLTAGE	± 10 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 &

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	TEST CONDITIONS
INPUT DIODE						
Forward Voltage	V_F	-	1.35	1.6	V	$I_F=100\text{mA}$ $t_p=20\text{mS}$
Reverse Voltage	V_R	5.0	-	-	V	$I_r = 100\text{uA}$
OUTPUT IC ($V_{cc}=4.75$ to 5.25)						
High level Output Current	I_{CH}		-	100	μA	$I_c = 10 \text{ uA}$
Low Level Output Voltage	V_{OL}		-	0.6	V	$I_F=10\text{mA}$ $I_{OL}=2.6\text{mA}$
High Level Supply Current	I_{CCH}			15	mA	$I_F=0$
Low Level Supply Current	I_{CCL}			18	mA	$I_F=10\text{mA}$
COUPLED($V_{cc}=5\text{volts}$)						
Propagation Delay to Low Output	t_{PHL}			800	nSecs	$R_L=560\text{ohms}$ $C=0.01\text{uF}$
Propagation Delay to High Output	t_{PLH}			800	nSecs	ditto

CIRCUIT

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

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