

OPI 1264

Series

Optically Coupled Isolators

BASEEFA & ATEX 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.

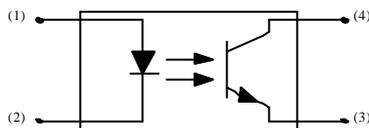
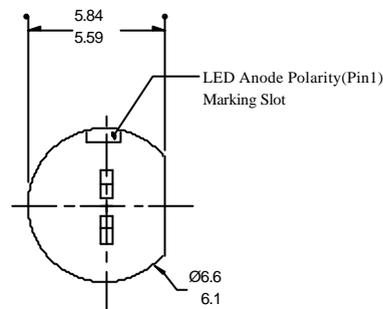
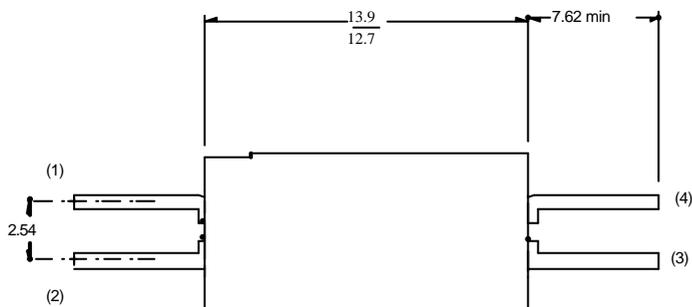
All electrical parameters are 100% tested by manufacturing. Specifications are guaranteed to a 0.65% AQL

- 10KV electrical rating
- High current transfer ratio-100% min@ 1m
- Designed and manufactured to EN50020 1995 and EN50014 1998

BASEEFA CERTIFIED
 BAS No. Ex89C2096UEExiaIIC
ATEX CERTIFIED
 BAS01ATEX1278U



MECHANICAL DATA



CONDITION OF USE APPLY
 EN50020 1994 CLAUSES
 6..4.9 AND 8.8

BEDFORD OPTO TECHNOLOGY LTD
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Website: bot.co.uk E-mail: bill@bot.co.uk

INPUT DIODE FORWARD DC CURRENT REVERSE DC VOLTAGE	50mA (3) 2V
OUTPUT PHOTOTRANSISTOR COLLECTOR-EMITTER VOLTAGE EMITTER-COLLECTOR VOLTAGE	30 V 5 V
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	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.
- 3 Derate linearly 0.73 mA/°C above 25°C
- 4 Derate linearly 1.67 mW/°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

OPTO ELECTRONIC DATA ($T_A = 25^\circ\text{C}$)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	TEST CONDIS- TIONS
INPUT DIODE						
Forward Voltage	V_F			1.5	V	$I_f = 20\text{mA}$
Reverse Current	I_R			100	μA	$V_r = 2\text{V}$
OUTPUT PHOTOTRANSISTOR						
Collector-Emitter Breakdown Volt-	$V_{(BR)CEO}$	30			V	$I_c = 1\text{mA}$ $I_f = 0$
Emitter-Collector Breakdown Volt-	$V_{(BR)ECO}$	5			V	$I_e = 100\mu\text{A}$
Collector-Emitter Dark Current	I_{CEO}			100	nA	$V_{ce} = 10\text{V}$
COUPLED CHARACTERISTICS						
DC Current transfer ratio	I_C/I_F					
OPI 1264A		25			%	$I_f = 10\text{mA}$, $V_{ce} = 5\text{V}$
OPI 1264B		50			%	$I_f = 10\text{mA}$, $V_{ce} = 5\text{V}$
OPI 1264C		100			%	$I_f = 10\text{mA}$, $V_{ce} = 5\text{V}$
OPI 1264D		100			%	$I_f = 1\text{mA}$, $V_{ce} = 5\text{V}$
Isolation Voltage	V_{ISO}	10			KV	See Note
Collector-emitter saturation voltage	$V_{CE(SAT)}$			0.4	V	$I_f = 10\text{mA}$,
Turn-on time	t_{on}		5		μS	$I_c = 10\text{mA}$, $V_{cc} = 10\text{V}$,
Turn-off time	t_{off}		5		μS	$I_c = 10\text{mA}$, $V_{cc} = 10\text{V}$,

NOTE:

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

OPTO ELECTRONIC SOLUTIONS

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ESSENTIAL HEALTH AND SAFETY INFORMATION IN ACCORDANCE WITH ATEX DIRECTIVE 94/9/EC

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INVOICE NUMBER _____

TYPE NUMBER _____

QUANTITY _____

BATCH NUMBER _____

DATE CODE _____

DATE OF SHIPMENT _____