

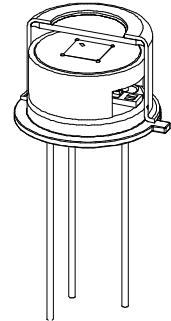
LIE-312-#

ø2 mm pyroelectric high performance IR detector
long time constant, high efficient metal black coating

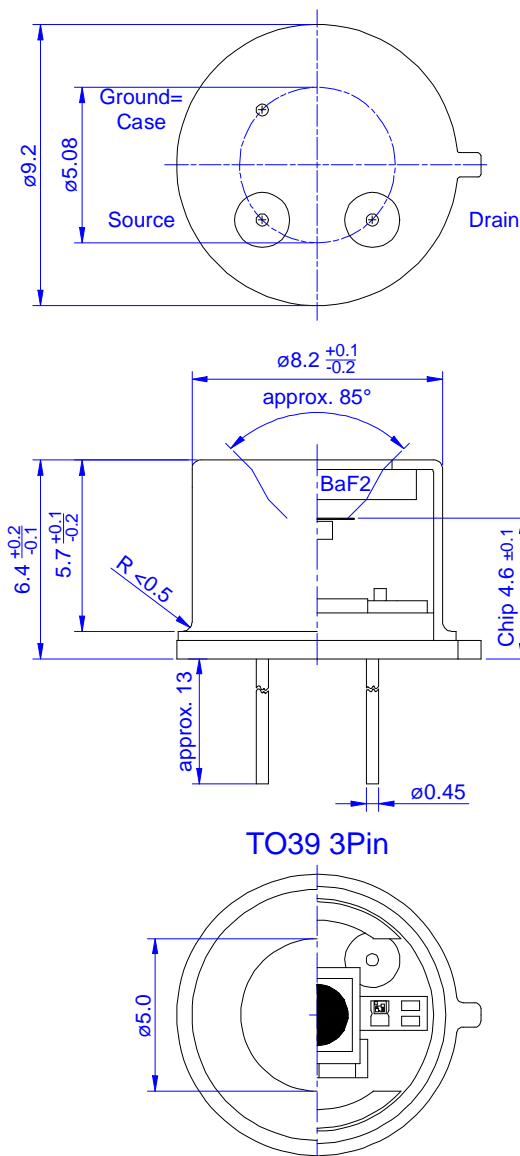
Description: LIE-312-#

[# = extension code]

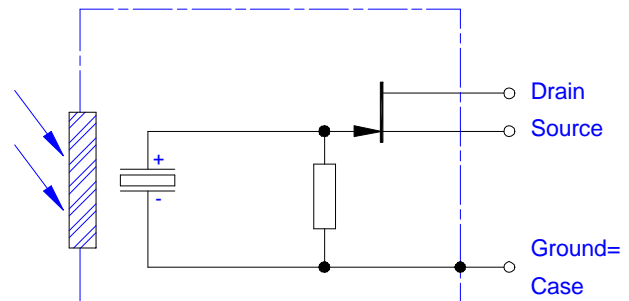
single element, area ø2mm; for voltage mode,
long time constant (1Hz ... 4kHz modulation frequency range)



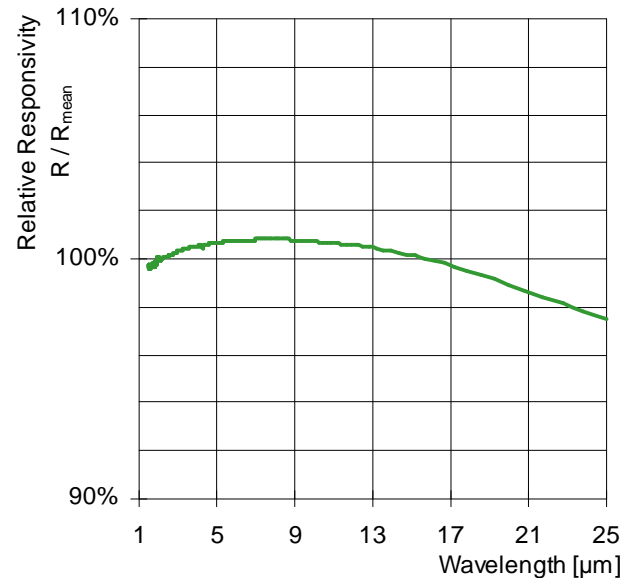
Housing:



Pin assignment :



Spectral response:



Extended Products

InfraTec GmbH
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01217 Dresden / Germany
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http://www.InfraTec.de

distributed by:

ELECTRO OPTICAL COMPONENTS, Inc.
5460 Skylane Blvd.
Santa Rosa, California 95403

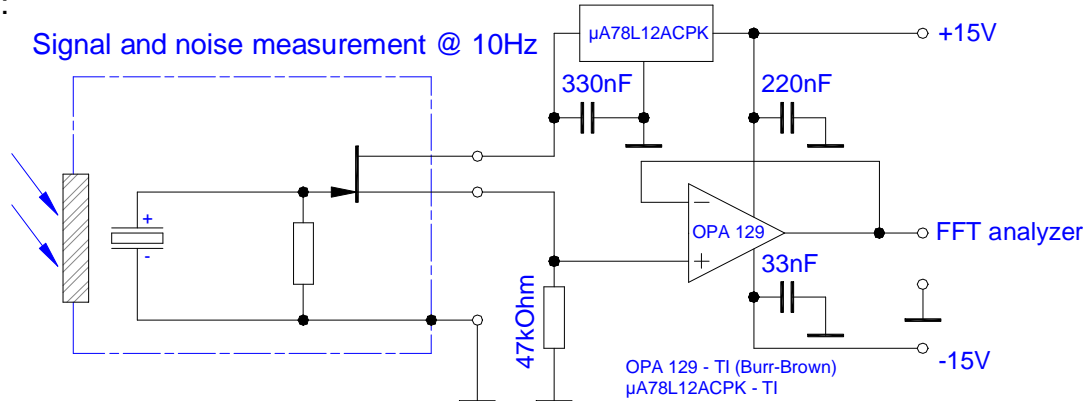


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LIE-312-#

ø2 mm pyroelectric high performance IR detector
long time constant, high efficient metal black coating

Test circuit:



Parameters:

Element size / type	nom	ø2.0 mm lithium-tantalate with metal black layer
Aperture	nom	ø5.0 mm
Thermal time constant	typ	200 ms
Electrical time constant	typ	5 s
Polarity	nom	positive signal by positive IR flux change
Voltage responsivity {500K, 10Hz, 25°C, without window}	min	500 V/W
{500K, 100Hz, 25°C, without window}	min	50 V/W
Noise density {10Hz, BW 1Hz, 25°C}	max	180 nV/Hz ^{1/2}
{100Hz, BW 1Hz, 25°C}	max	35 nV/Hz ^{1/2}
Detectivity {500K, 10Hz, 1Hz, 25°C, without window}	min	5.0*10 ⁸ cmHz ^{1/2} /W
{500K, 100Hz, 1Hz, 25°C, without window}	min	2.5*10 ⁸ cmHz ^{1/2} /W
{500K, 1kHz, 1Hz, 25°C, without window}	min	1.0*10 ⁸ cmHz ^{1/2} /W
Offset voltage {I _{Dopt.} =10-100μA}	nom	0.4 ... 1.5 V
U _{DS}	max	18 V
Operating / Storage temperature	nom	-25 ... +60°C
Window cap		All InfraTec standard crystal windows (BaF ₂ , CaF ₂ , CsI, KBr, Sapphire) are available. Customized filters upon request.

InfraTec reserves the right to change these specifications at any time without notification!

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InfraTec GmbH

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