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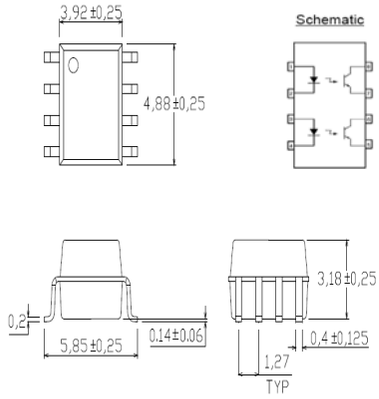
MOCD207

HIGH DENSITY MOUNTING DUAL CHANNEL OPTICALLY COUPLED ISOLATOR

ISOCOM COMPONENTS

ROHS COMPLIANT

Dimensions in mm



DESCRIPTION

The MOCD207 optically coupled isolator consists of an two infrared light emitting diodes and two NPN silicon photo transistors in a space efficient dual in line plastic package.

FEATURES

- Super Small Outline
- Special Selection CTR 100 - 200%
- High Isolation Voltage (3750V_{RMS})
- All electrical parameters 100% tested
- Custom electrical selections available

APPLICATIONS

- IFeedback Control Circuits
- Interfacing and coupling systems of different potentials and impedances
- General Purpose Switching Circuits
- Monitor and Detection Circuits

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ABSOLUTE MAXIMUM RATINGS
(25°C unless otherwise specified)

Storage Temperature	-55°C to + 150°C
Operating Temperature	-55°C to + 110°C

INPUT DIODE

Forward Current	60mA
Reverse Voltage	6V
Power Dissipation	90mW

OUTPUT TRANSISTOR

Collector-emitter Voltage BV_{CEO}	80V
Emitter-collector Voltage BV_{ECO}	7V
Collector Current	50mA
Power Dissipation	150mW

POWER DISSIPATION

Total Power Dissipation	250mW

ELECTRICAL CHARACTERISTICS (T_A = 25°C Unless otherwise noted)

PARAMETER		MIN	TYP	MAX	UNITS	TEST CONDITION
Input	Forward Voltage (V_F)		1.2	1.5	V	I_F = 10mA
	Reverse Current (I_R)			100	µA	V_R = 6V
Output	Collector-emitter Breakdown (BV_{CEO})	80			V	I_C = 0.1mA
	Emitter-collector Breakdown (BV_{ECO})	7			V	I_E = 100µA
	Collector-emitter Dark Current (I_{CEO})			50	nA	V_{CE} = 10V
Coupled	Current Transfer Ratio (CTR)	100 34	 70	200	%	10mAI_F,5V V_{CE} 1mAI_F,5V V_{CE}
	Collector-Emitter Saturation Voltage			0.4	V	10mAI_F, 2.4mAI_C
	Input to Output Isolation Voltage V_{ISO}	3750			V_{RMS}	See note 1
	Input-output Isolation Resistance R_{ISO}	10^{11}			Ω	V_{IO} = 500VDC (note 1)
	Output Rise Time (tr) Output Fall Time (tf)		1.6 2.2	 18	µs µs	V_{CC} = 5V , I_C=2mA,R_L=100Ω

Note 1 Measured with input leads shorted together and output leads shorted together.