

MOCD207



ISOCOM
COMPONENTS

**HIGH DENSITY MOUNTING DUAL
CHANNEL OPTICALLY COUPLED
ISOLATOR**



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.

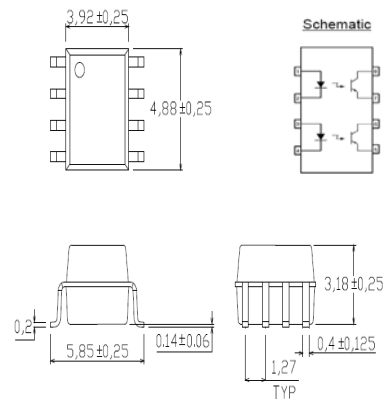
FEATURES

- 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

Dimensions in mm



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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 ($T_A = 25^\circ\text{C}$ Unless otherwise noted)

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

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