

# MOCD217



# ISOCOM

COMPONENTS

## HIGH DENSITY MOUNTING DUAL CHANNEL OPTICALLY COUPLED ISOLATOR



### DESCRIPTION

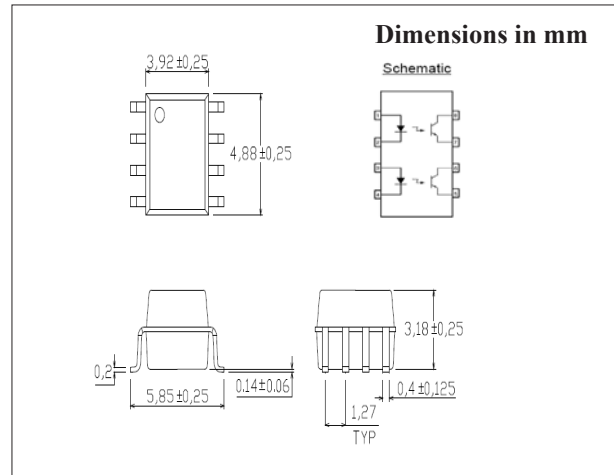
The MOCD217 optically coupled isolator consists of two infrared light emitting diodes and two NPN silicon photo transistors in a space efficient dual in line plastic package.

### FEATURES

- Super Small Outline
- Low Input Current CTR 100%
- High Isolation Voltage (3750V<sub>RMS</sub>)
- 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 (  $T_A = 25^\circ\text{C}$  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	$\mu\text{A}$	$V_R = 6\text{V}$
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	130		%	$1\text{mA} I_F, 5\text{V} V_{CE}$
	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 $R_{ISO}$	$10^{11}$			$\Omega$	$V_{IO} = 500\text{VDC}$ (note 1)
	Output Rise Time (tr) Output Fall Time (tf)		1.6 2.2		$\mu\text{s}$ $\mu\text{s}$	$V_{CC} = 5\text{V},$ $I_C = 2\text{mA}, R_L = 100\Omega$

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