

DESCRIPTION

The MOCD207 is a dual channel optically coupled isolator each channel consists of an infrared light emitting diode and a NPN silicon photo transistor in a space efficient dual in line plastic package.

It belongs to Isocom Compact Range of optocouplers

FEATURES

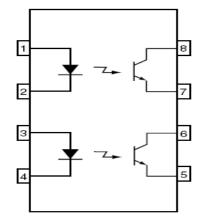
- Half Pitch 1.27mm
- High AC Isolation Voltage 3750V_{RMS}
- Wide Operating Temperature Range -55°C to +110°C
- Lead Free and RoHS Compliant
- UL Approval File E91231

APPLICATIONS

- Feedback Control Circuits
- Interfacing and Coupling Systems of
 Different Potentials and Impedances
- General Purpose Switching Circuits
- Monitor and Detection Circuits

ORDER INFORMATION

Available in Tape and Reel with 2000pcs
 per reel



ABSOLUTE MAXIMUM RATINGS ($T_A = 25^{\circ}C$)

Input Diode

Forward Current Peak Forward Current	60mA 1A
(t = 10µs)	
Reverse Voltage	6V
Power dissipation	90mW

Output Transistor

Collector to Emitter Voltage BV_{CEO} Collector to Base Voltage BV_{CBO} Emitter to Collector Voltage BV_{ECO} Collector Current Power Dissipation

Total Package

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80V

80V

7V

50mA

150mW

ELECTRICAL CHARACTERISTICS ($T_A = 25^{\circ}C$ unless otherwise specified)

INPUT

Parameter	Symbol	nbol Test Condition		Тур.*	Max	Unit
Forward Voltage	\mathbf{V}_{F}	$I_F = 10 mA$		1.2	1.5	V
Reverse Leakage	I _R	$V_R = 6V$		0.1	100	μA
Input Capacitance	C _{in}	V = 0V, f = 1MHz		25		pF

OUTPUT

Parameter	Symbol	nbol Test Condition		Тур.*	Max	Unit
Collector—Emitter breakdown Voltage	BV _{CEO}	$I_{\rm C} = 0.1 {\rm mA}, I_{\rm F} = 0 {\rm mA}$	80			V
Emitter—Collector breakdown Voltage	BV _{ECO}	$I_{E} = 0.1 \text{mA}, I_{F} = 0 \text{mA}$	7			V
Collector-Emitter Dark Current	I _{CEO}	$V_{CE} = 10V, I_F = 0mA$		5.0	50	nA

COUPLED

Parameter	Parameter Symbol Test Condition		Min	Тур.*	Max	Unit
Current Transfer Ratio	CTR	$I_{\rm F} = 10 {\rm mA}, V_{\rm CE} = 5 {\rm V}$	100		200	%
		$I_F = 1 \text{ mA}, V_{CE} = 5 \text{ V}$	34	70		
Collector—Emitter Saturation Voltage	V _{CE(sat)}	$I_{\rm F} = 10 {\rm mA}, I_{\rm C} = 2.5 {\rm mA}$			0.4	V
Input to Output Isolation Resistance	R _{ISO}	$V_{IO} = 500V$ Note 1		10 ¹¹		Ω
Turn-On Time	t _{on}	$V_{CE} = 10V$,		5.0		μs
Turn-Off Time	t _{off}	$Ic = 2mA, R_L = 100\Omega$		4.0		
Rise Time	t _r			1.6		
Fall Time	t _f			2.2		

Note 1 : Measured with input leads shorted together and output leads shorted together, R.H 40% to 60%.

* Typical values at $T_A = 25^{\circ}C$



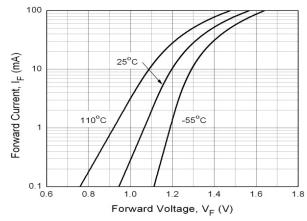


Fig 1 Forward Current vs Forward Voltage

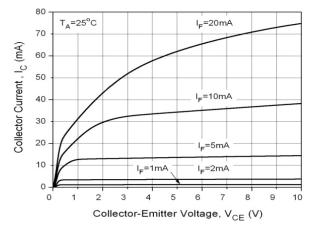
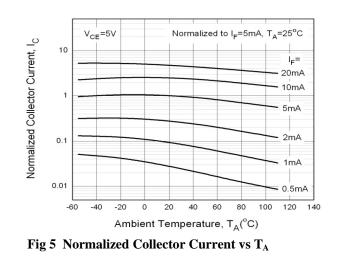
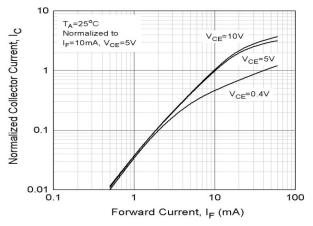
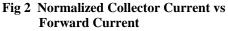


Fig 3 Collector Current vs Collector-emitter Voltage (1)







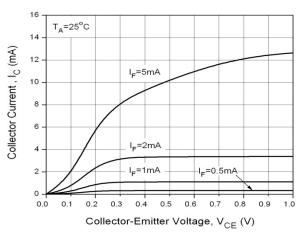


Fig 4 Collector Current vs Collector-emitter Voltage (2)

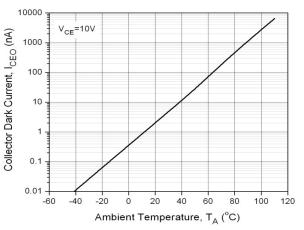
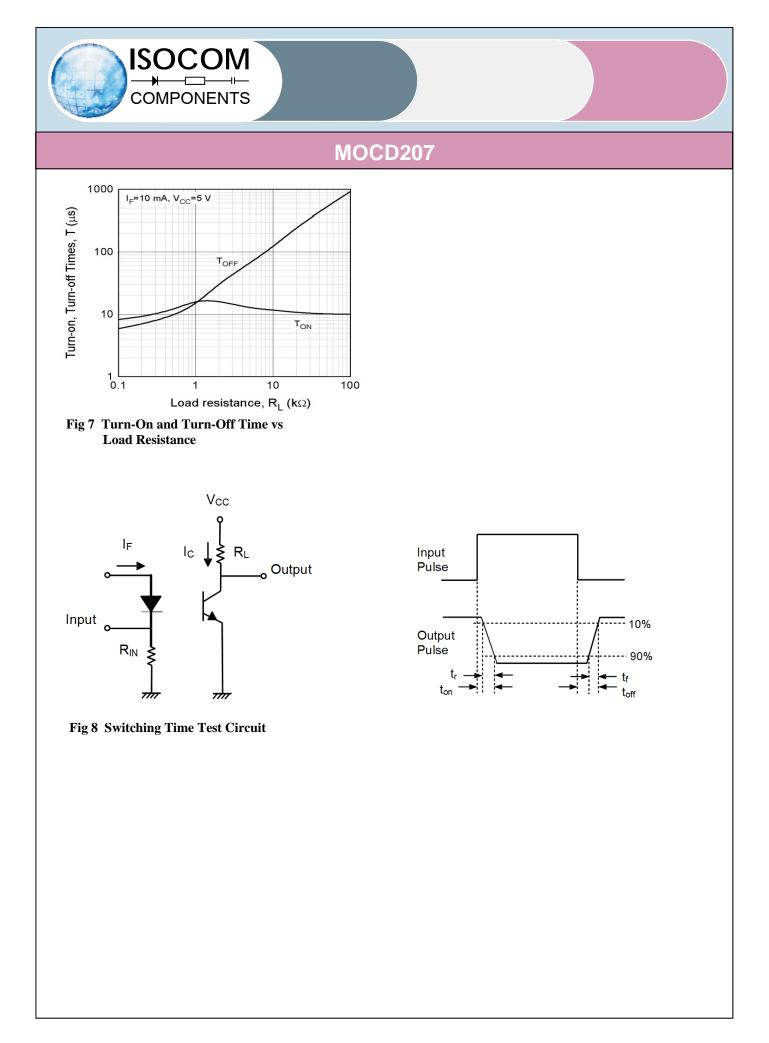


Fig 6 Collector Dark Current vs T_A

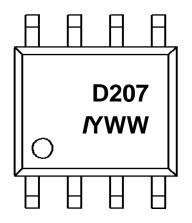




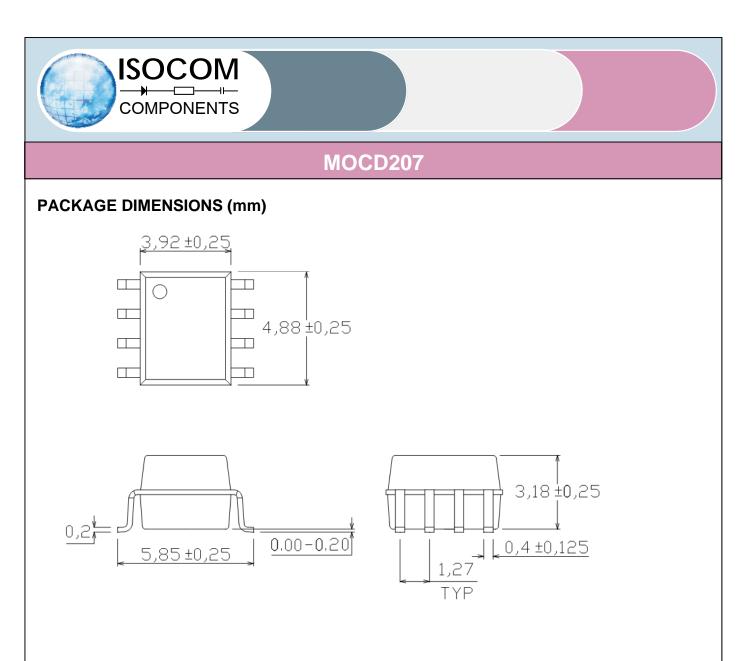
ORDER INFORMATION

MOCD207			
After PN PN Description Packing quantities			
None	MOCD207	Surface Mount Tape & Reel	2000 pcs per reel

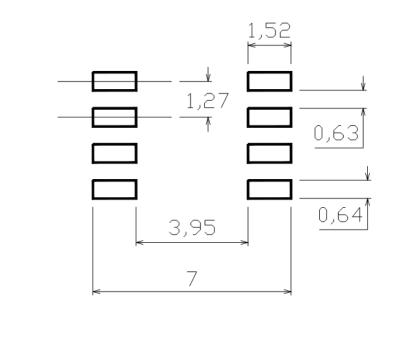
DEVICE MARKING

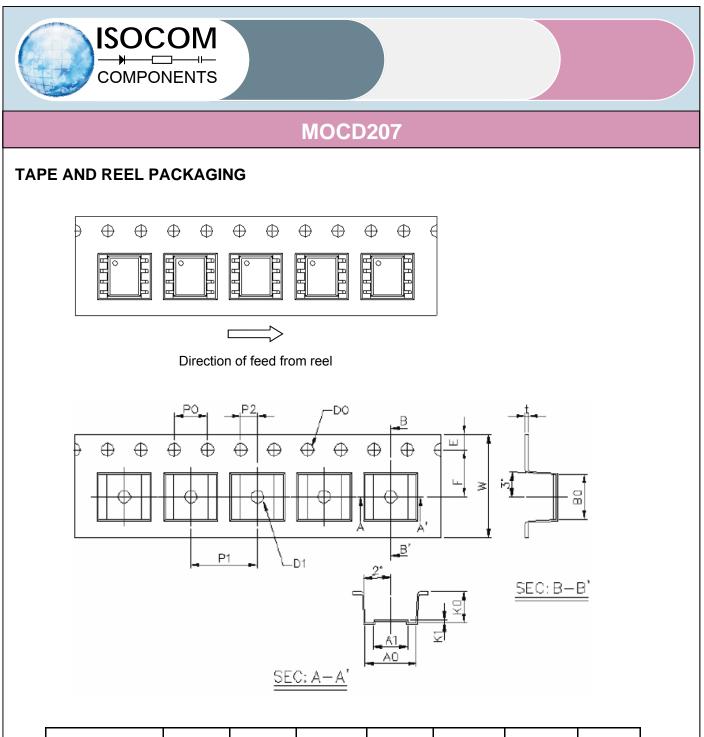


D207	denotes Device Part Number
1	denotes Isocom
Y	denotes 1 digit Year code
WW	denotes 2 digit Week code

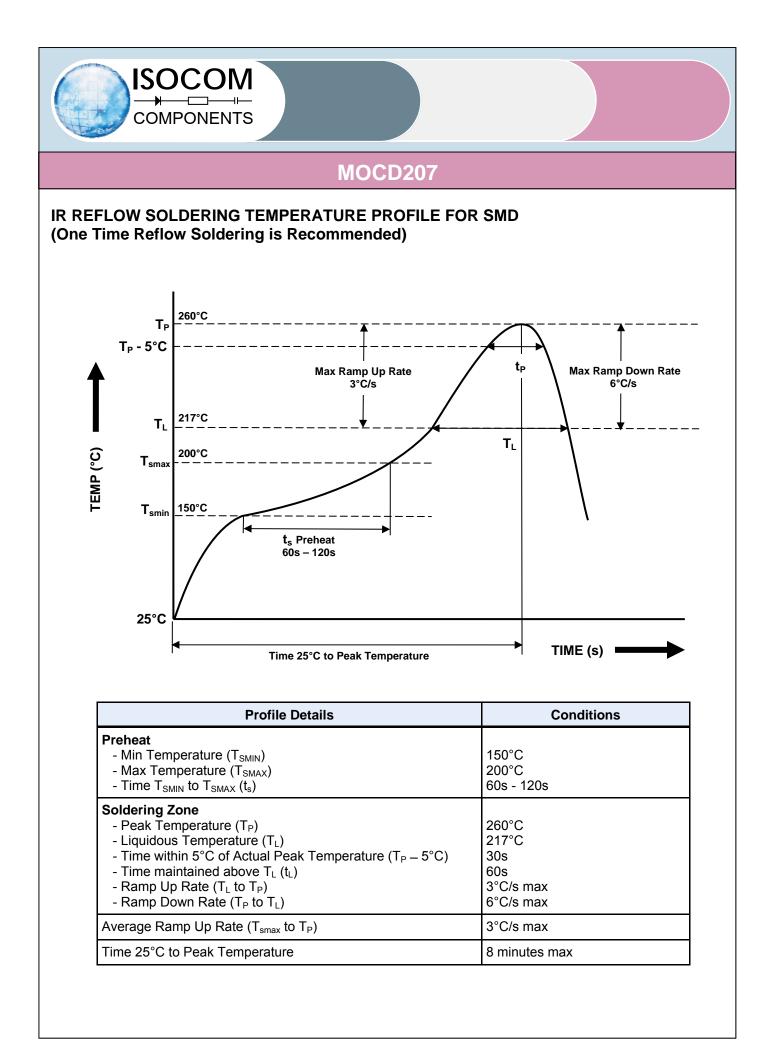


RECOMMENDED PAD LAYOUT (mm)





Dimension No.	A0	A1	B0	D0	D1	Е	F
Dimension (mm)	6.2±0.1	4.1±0.1	5.28±0.1	1.5±0.1	1.5±0.3	1.75±0.1	5.5±0.1
Dimension No.	Ро	P1	P2	t	W	K0	K1
Dimension (mm)	4.0±0.1	8.0±0.1	2.0±0.1	0.4±0.1	12.0 +0.3/-0.1	3.7±0.1	0.3±0.1



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- When requiring a device for any "specific" application, please contact our sales for advice.
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- Do not immerse device body in solder paste.

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