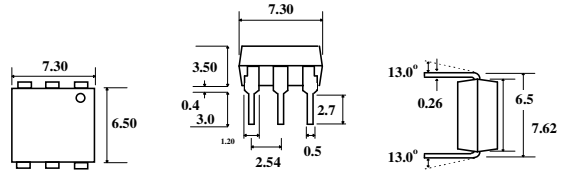
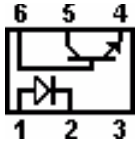
4N26
TRANSISTOR
OPTOCOUPLERS

ISOCOM® LTD

PACKAGES	CIRCUIT
	

DESCRIPTION

The 4N26 is an optically coupled isolator. It consists of a Gallium Arsenide infrared emitting diode and a NPN silicon phototransistor mounted in a standard 6 pin dual-in-line package

Isocom Ltd supplies a multitude of plastic optocouplers for all applications varying from standard transistor optocoupler through to Darlington and Schmitt Trigger devices. Its massive family of optocoupler vary in speed allowing maximum opportunity to engineers worldwide.

All devices are performance guaranteed between -20ºC and +80ºC and have completed rigorous testing. The Company's customers can be assured of our commitment to stringent quality, reliability and inspection standards, as demonstrated by our existing approvals. Other customer specific options can also be offered.

FEATURES

1500V Isolation
High DC Current transfer ratio
Low cost dual-in-line package
UL Approval E250824

For sales enquiries, or further information, please contact our sales office at:
Isocom Ltd, Hutton Close, Crowther Industrial Estate, District 3, Washington, NE38 0AH
Tel: +44 0191 4166 546 Fax: +44 0191 4155 055 Email sales@isocom.uk.com
Or go to the Isocom Website @: Http://www.isocom.uk.com

ABSOLUTE MAXIMUM RATINGS

Storage Temperature	-55°C to +150°C
Operating Temperature	-55°C to +100°C
Lead Soldering Temperature	260°C 1.6mm from case for 10S
Input-to-Output Isolation Voltage	⇧1500V

Input Diode

Forward DC Current	80mA	
Reverse DC Voltage	3V	
Peak forward Current	3.0A	1µS p.w. 300 pps
Power Dissipation	100mW	Derate linearly above 25°C at 1.33mW/°C.

Output Transistor

Collector-Emitter Voltage	30V	BV_{CEO}
Emitter-collector voltage	7V	BV_{ECO}
Collector-base voltage	70V	BV_{CBO}
Power Dissipation	150mW	Derate linearly above 25°C at 2.0mW/°C

Package

Total Power Dissipation	250mW	Derate linearly above 25°C at 3.3mW/°C

ELECTRICAL CHARACTERISTICS

T_A = 25°C U.O.S. (each channel where appropriate).

Input Diode Electrical Characteristics

Parameter	Symbol	Test Conditions	Min	Typ	Max	Units
Forward Voltage	V_F	I_F = 10mA			1.5	V
Reverse Current	I_R	V_R= 3.0V			100	µA
Reverse Breakdown Voltage	V_R	I_R= 100µA	3.0			V

Output Detector Electrical Characteristics

Collector-emitter Voltage	BV_{CEO}	I_C= 1mA	30			V
Emitter-collector Voltage	BV_{ECO}	I_E= 100µA	7			V
Collector-base Voltage	BV_{CBO}	I_C= 100µA	70			V
Collector-emitter Dark Current	I_{CEO}	V_{CE}= 10V, I_B= 0			50	nA
Collector-base Dark Current	I_{CBO}	V_{CB}= 10.0V, I_E= 0			20	nA
Collector-Emitter Capacitance	C_{CE}	V_{CE}= 0		10		pF
	H_{FE}	V_{CE}= 5.0V, I_C= 100µA		150		

Coupled Electrical Characteristics

DC Current Transfer Ratio	CTR	I_F = 10mA, V_{CE} = 10V, I_B= 0	20	50		%
Input-to-Output Isolation Resistance	R_{ISO}	V_{IO}= 500V	10^{11}			Ω
Collector-Emitter Saturation Voltage	$V_{CE(Sat)}$	I_F= 50mA, I_C= 2mA			0.5	V
Capacitance Input to Output	C_{IO}	F= 1Mhz		0.6		pF
Output Rise Time	T_R	V_{CC}= 10V, I_C= 2mA, R_L= 100Ω		2.0		µS
Output Fall Time	T_F			2.0		µS
Input-to-Output Isolation Voltage			1500			V

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