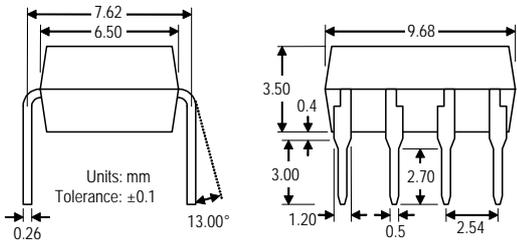
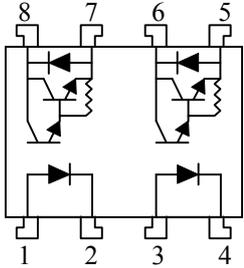


TLP627-2 DARLINGTON OPTOCOUPERS

ISOCOM[®] LTD

PACKAGES	CIRCUIT
 <p>Units: mm Tolerance: ±0.1</p>	

DESCRIPTION

These devices are dual channel optocouplers. Each channel is composed of a Gallium Arsenide infra-red emitting diode and a darlington phototransistor. Package styles for these devices are 8 pin dil with surface mount, butt cut and gull wing options available.

The same electrical die, assembly processes and materials are used for each channel of each device shown below. Therefore absolute maximum ratings, recommended operating conditions, electrical specifications and performance characteristics are identical for all units. Any exceptions, due to packaging variations and limitations, are as noted.

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

All devices are performance guaranteed between -20°C and +80°C 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

- Manufactured and tested in BS9000 and CECC20000 approved premises
- High current transfer ratio
- 5000V electrical isolation

Isocom Ltd reserves the right to change the details on this specification without notice. Please consult Isocom Ltd prior to use. Isocom Ltd cannot accept liability for any errors or omissions.

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 Isocom@isocomoptocouplers.com

Or go to the Isocom Website @: [Http://www.isocom.uk.com](http://www.isocom.uk.com)

ABSOLUTE MAXIMUM RATINGS

Storage Temperature	-55°C to +100°C
Operating Temperature	-55°C to +125°C
Lead Soldering Temperature	260°C 1.6mm from case for 10S
Input-to-Output Isolation Voltage	↑5000VDC

Input Diode

Forward DC Current	50mA	
Reverse DC Voltage	5V	
Peak forward Current	1.0A	≤ 10μS duration
Power Dissipation	70mW	Derate linearly above 100°C at 1.6W/°C.

Output Transistor

Collector-Emitter Voltage	50V	V _{CEO}
Emitter-Collector Voltage	0.3V	V _{ECO}
Collector Current	150mA	
Power Dissipation	100mW	

ELECTRICAL CHARACTERISTICS

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

Input Diode Electrical Characteristics

Parameter	Symbol	Test Conditions	Device	Min	Typ	Max	Units
Forward Voltage	V _F	I _F = 10mA			1.2	1.4	V
Reverse Current	I _R	V _R = 5V				10	μA
Capacitance	C _T	V = 0, f = 1MHz			30		pF

Output Detector Electrical Characteristics

Collector-Emitter Breakdown Voltage	BV _{CEO}	I _C = 0.1mA		300			V
Emitter-Collector Breakdown Voltage	BV _{ECO}	I _E = 0.1mA		0.3			V
Collector Dark Current	I _{CEO}	V _{CE} = 200V, I _F = 0			10	200	nA

Coupled Electrical Characteristics

DC Current Transfer Ratio	I _C /I _F	I _F = 1mA, V _{CE} = 1V		1000	4000		%
Saturated CTR	I _C /I _{F(sat)}	I _F = 10mA, V _{CE} = 1V,		500			
Collector-Emitter Saturation Voltage	V _{CE} (Sat)	I _F = 1mA, I _C = 10mA				1	V
Input to Output Capacitance	C _S	V _S = 0, f = 1mhz			0.8		pF
Input to Output Resistance	R _{IO}	V _{IO} = 500V		-5*10 ¹⁰			Ω
Isolation Voltage	V _{IO}	Isolating Voltage 1 minute		5000			VDC
Rise Time	t _r	R _L = 100Ω, I _C = 10mA, V _{CC} = 10V			40		μS
Fall Time	t _f				15		μS
Turn -on Time	t _{on}				50		μS
Turn-off Time	t _{off}				15		μS
Turn -on Time	t _{on}	R _L = 180Ω, I _C = 16mA, V _{CC} = 10V			5		μS
Strange Time	t _S				40		μS
Tuen-off Time	t _{OFF}				80		μS

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