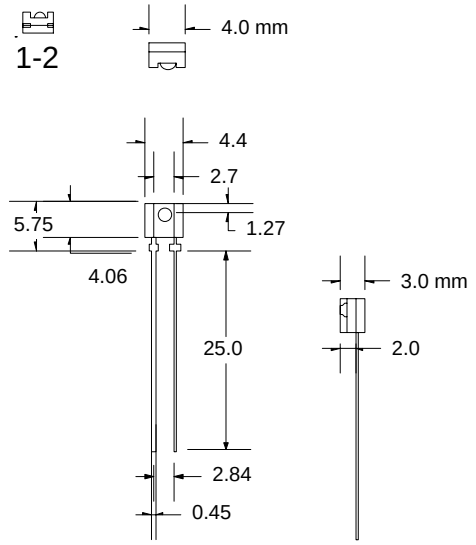
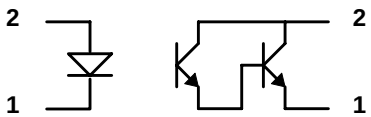
IS652A IS653A
MATCHED EMITTER DETECTOR PAIR PHOTO DARLINGTON OUTPUT

ISOCOM® LTD

PACKAGES	CIRCUIT
	

IS652A IS653A

DESCRIPTION

The IS652A (Gallium Arsenide Infrared Emitting Diode) and the IS653A(NPN Silicon Photo Darlington Transistor) are matched Emitter Detector Pair mounted in clear plastic lateral side looking packages which enables these devices to display superior mechanical resolution, coupled characteristics and reliability in a low cost housing.

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 -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

- Lateral Side Looking Clear Plastic
- High Current transfer ratio

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

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

Infrared Emitting Diode

Forward DC Current	50mA	
Reverse DC Voltage	5V	
Peak forward Current	3.0A	1µS p.w. 300 pps
Power Dissipation	100mW	Derate linearly above 25°C at 1.33mW/°C.

Output Photo Darlington Transistor

Collector-Emitter Voltage	30V	BV_{CEO}
Emitter-collector voltage	5V	BV_{ECO}
Power Dissipation	75mW	

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		1.0		1.3	V
Reverse Current	I_R	V_R= 5.0V				10	µA
Reverse Breakdown Voltage	V_R	I_R= 10µA		5.0			V

Output Detector Electrical Characteristics

Collector-emitter Voltage	BV_{CEO}	I_C= 1mA		30			V
Emitter-collector Voltage	BV_{ECO}	I_E= 100µA		5			V
Collector-emitter Dark Current	I_{CEO}	V_{CE}= 10V, E_e= 0*				100	nA

Coupled Electrical Characteristics

Dark Current	$I_{D(ICEO)}$	V_{CE}= 16V, E= 0			0.03	0.25	µA
Collector-Emitter Saturation Voltage	$V_{CE(Sat)}$	V_{CE}= 0.3mA, E= 0.1mW/cm^2			0.9	1.2	V
Output Rise Time	T_R	V_{CC}= 5V, I_C= 10mA, R_L= 100Ω			200		µS
Output Fall Time	T_F				150		µS

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