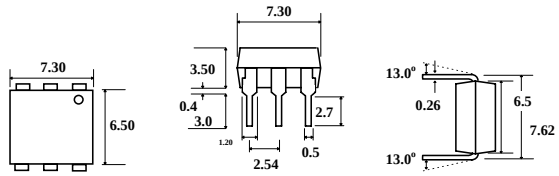
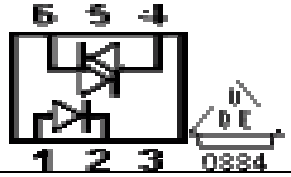
MOC3051, MOC3052
OPITCALLY COUPLED ISOLATORS

PACKAGES	CIRCUIT
	

DESCRIPTION

The MOC3051 and MOC3052 are constructed from a Gallium Arsenide Infrared Emitting Diode and Silicon Triac Bidirectional (double Thyristor) Detector, housed in a plastic package. Surface Mount Option Available. All electrical parameters are 100% tested by manufacturing. Specifications are guaranteed to a cumulative 0.65% AQL.

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

- Rated Impulse Voltage (Transient Overvoltage)
- Insulation Test Voltage (Partial Discharge Test Voltage) V_{PD}=1.6 Kv
- Creeping Current Resistance according to VDE 0303/IEC 112
- Rated Insulation Voltage (RMS includes DC) V_{IOWM}=600 V_{RMS} (848 Vpeak)
- Rated Recurring Peak Voltage (Repetitive) V_{IORM}=600 V_{RMS}
- Comparative Tracking Index CTI=275

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

Emitter

Reverse Voltage:	6V
Forward Current:	60mA
Forward Surge Current:	3A
Power Dissipation:	100mW
Derate Linearly:	1.33mW/°C above 25°C
Junction Temperature:	125°C

Detector

Off-State Output Terminal Voltage:	600V	BV_{CEO}
On-State RMS Current	100mA	
Peak Surge Current	1.2A	
Collector Peak On-State Current:	2A	
Power Dissipation:	300mW	
Junction Temperature:	125°C	

Coupled Devices (Max)

Total Power Dissipation:	330mW
Storage Temperature Range	-55°C to +125°C
Ambient Temperature Range	-40°C to +100°C
Soldering Temperature:	260°C

ELECTRICAL CHARACTERISTICS

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

EMITTER	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V_F	Forward Voltage	I_F=50mA		1.25	1.6	V
V_{BR}	Breakdown Voltage	I_R=10µA	5			V
C_J	Junction Capacitance	V_R=0, f=1MHz		50		pF
DETECTOR						
V_{DRM}	Off-State Output Terminal Voltage	I_{DRM}=100nA	600			V
V_{TM}	Peak On-State Voltage	I_{TM}=100mA, I_{FT}=30mA		1.5	3	V
dV/dt cr2	Critical Rate of Rise of Off-State-Voltage	I_F=0, V_S=240Vrms		50		V/µs
dV/dt crq2		I_F=30mA, V_S=60Vrms	0.13	0.25		V/µs
COUPLED	**PARAMETER**	**CONDITIONS**	**MIN**	**TYP**	**MAX**	**UNIT**
I_{FT}	Emitter Diode Trig Current MOC3051	V_T=6V, R_L=150ohm		10	15	mA
	Emitter Diode Trig Current MOC3052			5	10	mA
I_H	Holding Current	I_F>=10mA, V_S>=3V		1		mA

Notes
1. BV_{CEO} and BV_{CBO} can be selected to suit customer specifications.
2. Measured between input when leads 1, 2 and 3 are shorted together, and output when leads 4, 5 and 6 are shorted together.
3. A higher CTR can be selected to suit customer specification as a standard part.

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