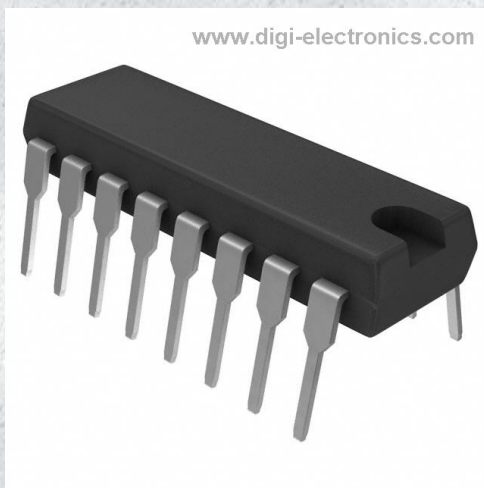


ISQ201XG Datasheet



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	ISQ201XG-DG
Manufacturer	Isocom Components 2004 LTD
Manufacturer Product Number	ISQ201XG
Description	16PIN TRANSISTOR OUTPUT, QUAD OP
Detailed Description	Optoisolator Transistor Output 5300Vrms 1 Channel 16-DIP

This model ISQ201XG is available at DiGi Electronics.

DiGi Electronics offers a global database of semiconductor and electronic component datasheets.

We welcome your inquiries regarding pricing, lead time, or other product-related questions.

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Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.

Purchase and inquiry

Manufacturer Product Number:

ISQ201XG

Series:

ISQ

Number of Channels:

1

Current Transfer Ratio (Min):

75% @ 10mA

Turn On / Turn Off Time (Typ):

3 μ s, 2.5 μ s

Input Type:

DC

Voltage - Output (Max):

70V

Voltage - Forward (Vf) (Typ):

1.2V

Vce Saturation (Max):

400mV

Mounting Type:

Through Hole

Supplier Device Package:

16-DIP

Manufacturer:

Isocom Components 2004 LTD

Product Status:

Active

Voltage - Isolation:

5300Vrms

Current Transfer Ratio (Max):

-

Rise / Fall Time (Typ):

-

Output Type:

Transistor

Current - Output / Channel:

50mA

Current - DC Forward (If) (Max):

50 mA

Operating Temperature:

-25°C ~ 100°C

Package / Case:

16-DIP (0.400", 10.16mm)

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8541.49.8000

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99



HIGH DENSITY PHOTOTRANSISTOR OPTICALLY COUPLED ISOLATORS

**IS201, IS202, IS203, IS204,
ISD201, ISD202, ISD203, ISD204,
ISQ201, ISQ202, ISQ203, ISQ204**

APPROVALS

- UL recognised, File No. E91231
Package Code "GG" or "FF"

'X' SPECIFICATION APPROVALS

- VDE 0884 in 3 available lead form : -
- STD
- G form
- SMD approved to CECC 00802
- IS20* Certified to EN60950 by :-
Nemko - Certificate No. P01102464

DESCRIPTION

The IS20*, ISD20*, ISQ20* series of optically coupled isolators consist of infrared light emitting diodes and NPN silicon photo transistors in space efficient dual in line plastic packages.

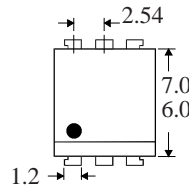
FEATURES

- Options :-
10mm lead spread - add G after part no.
Surface mount - add SM after part no.
Tape&reel - add SMT&R after part no.
- High Isolation Voltage (5.3kV_{RMS}, 7.5kV_{PK})
- High BV_{CEO} (70V min)
- All electrical parameter 100% tested
- Custom electrical selections available

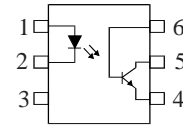
APPLICATIONS

- Computer terminals
- Industrial systems controllers
- Signal transmission between systems of different potentials and impedances

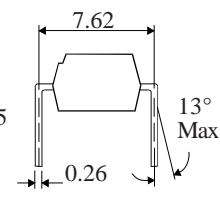
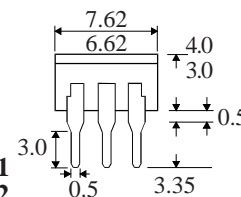
**IS201
IS202
IS203
IS204**



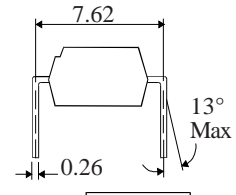
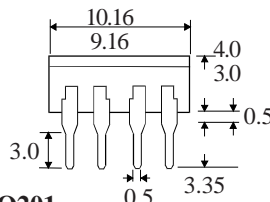
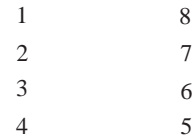
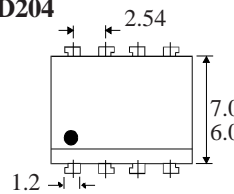
Dimensions in mm



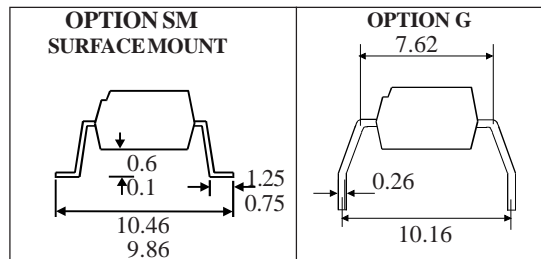
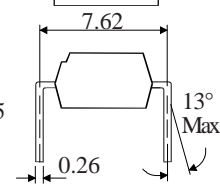
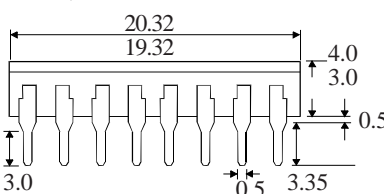
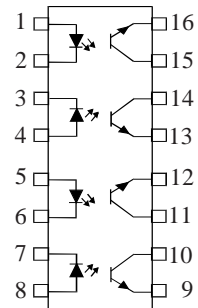
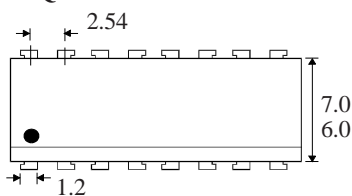
**ISD201
ISD202
ISD203
ISD204**



**ISQ201
ISQ202
ISQ203
ISQ204**



**ISQ201
ISQ202
ISQ203
ISQ204**



ISOCOM COMPONENTS 2004 LTD
Unit 25B, Park View Road West,
Park View Industrial Estate, Brenda Road
Hartlepool, Cleveland, TS25 1UD
Tel: (01429) 863609 Fax: (01429) 863581

ABSOLUTE MAXIMUM RATINGS
(25°C unless otherwise specified)

Storage Temperature _____ -40°C to +125°C
 Operating Temperature _____ -25°C to +100°C
 Lead Soldering Temperature
 (1/16 inch (1.6mm) from case for 10 secs) 260°C

INPUT DIODE

Forward Current _____ 50mA
 Reverse Voltage _____ 6V
 Power Dissipation _____ 70mW

OUTPUT TRANSISTOR

Collector-emitter Voltage BV_{CEO} _____ 70V
 Emitter-collector Voltage BV_{ECO} _____ 6V
 Collector Current _____ 50mA
 Power Dissipation _____ 150mW

POWER DISSIPATION

Total Power Dissipation _____ 170mW
 (derate linearly 2.67mW/°C above 25°C)

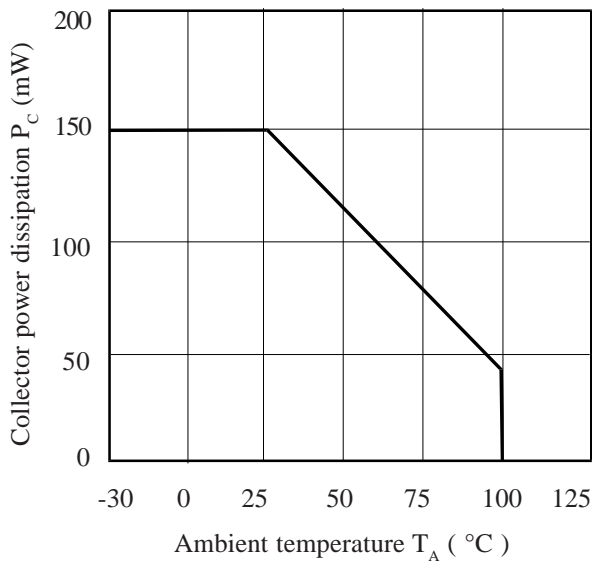
ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ Unless otherwise noted)

PARAMETER		MIN	TYP	MAX	UNITS	TEST CONDITION
Input	Forward Voltage (V_F)		1.2	1.65	V	$I_F = 50\text{mA}$
	Reverse Current (I_R)			10	μA	$V_R = 4\text{V}$
Output	Collector-emitter Breakdown (BV_{CEO}) (Note 2)	70			V	$I_C = 1\text{mA}$
	Emitter-collector Breakdown (BV_{ECO})	6			V	$I_E = 100\mu\text{A}$
	Collector-emitter Dark Current (I_{CEO})			50	nA	$V_{CE} = 10\text{V}$
Coupled	Current Transfer Ratio (CTR) (Note 2)					
	IS201, ISD201, ISQ201	75			%	10mA I_F , 10V V_{CE}
	IS201, ISD201, ISQ201	10			%	1mA I_F , 10V V_{CE}
	IS202, ISD202, ISQ202	125		250	%	10mA I_F , 10V V_{CE}
	IS202, ISD202, ISQ202	30			%	1mA I_F , 10V V_{CE}
	IS203, ISD203, ISQ203	225		450	%	10mA I_F , 10V V_{CE}
	IS203, ISD203, ISQ203	50			%	1mA I_F , 10V V_{CE}
	IS204, ISD204, ISQ204	200		400	%	10mA I_F , 10V V_{CE}
	IS204, ISD204, ISQ204	100			%	1mA I_F , 10V V_{CE}
	Collector-emitter Saturation Voltage $V_{CE(SAT)}$		0.2	0.4	V	10mA I_F , 2mA I_C
	Input to Output Isolation Voltage V_{ISO}	5300			V_{RMS}	See note 1
	7500			V_{PK}	See note 1	
Input-output Isolation Resistance R_{ISO}	5×10^{10}			Ω	$V_{IO} = 500\text{V}$ (note 1)	
Output Turn on Time t_{ON}			3.0	μs	$I_F = 10\text{mA}$	
Output Turn off Time t_{OFF}			2.5	μs	$V_{CE} = 5\text{V}$, $R_L = 75\Omega$	

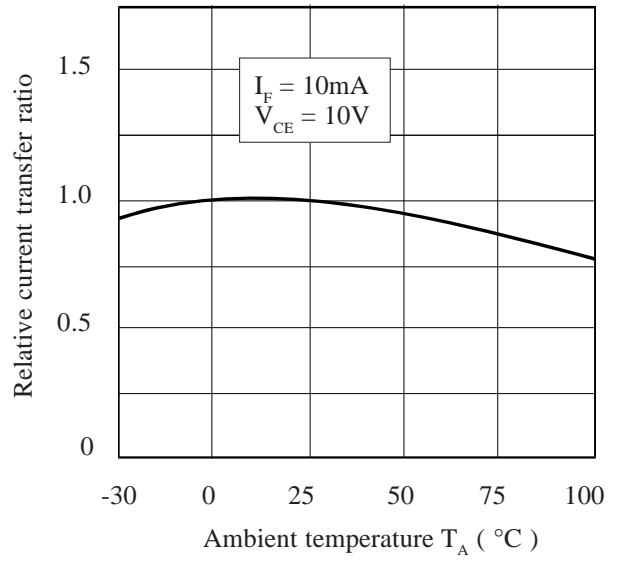
Note 1 Measured with input leads shorted together and output leads shorted together.

Note 2 Special Selections are available on request. Please consult the factory.

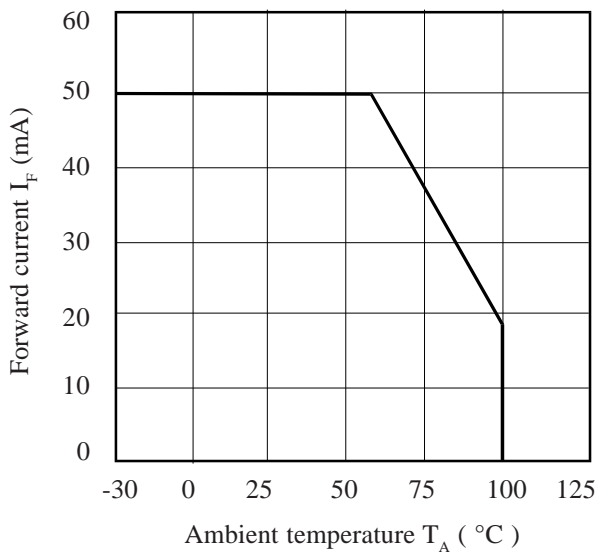
Collector Power Dissipation vs. Ambient Temperature



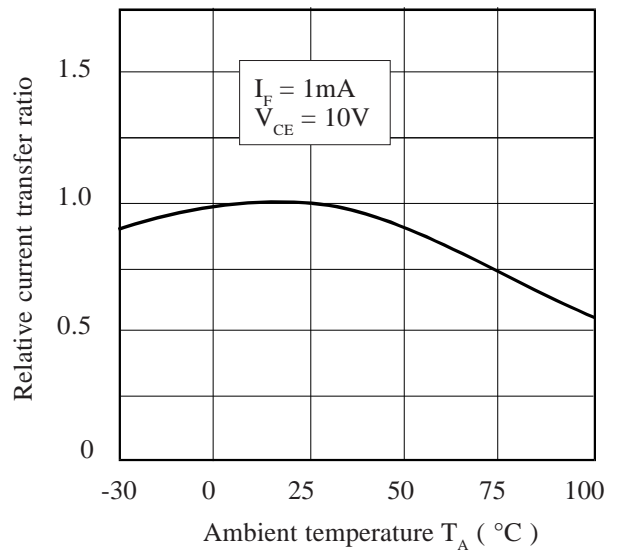
Relative Current Transfer Ratio vs. Ambient Temperature



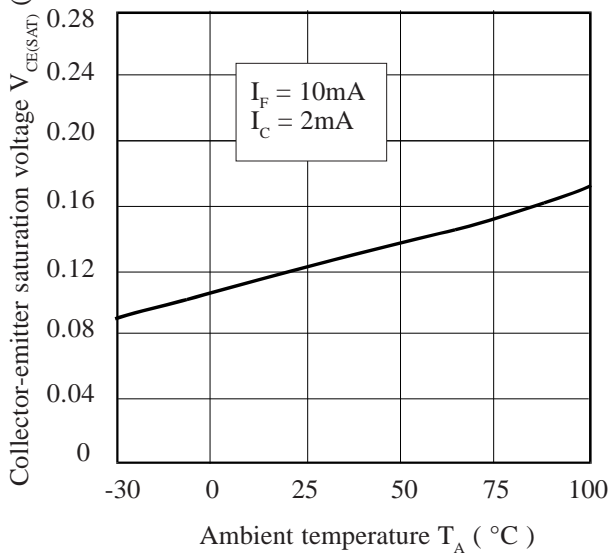
Forward Current vs. Ambient Temperature



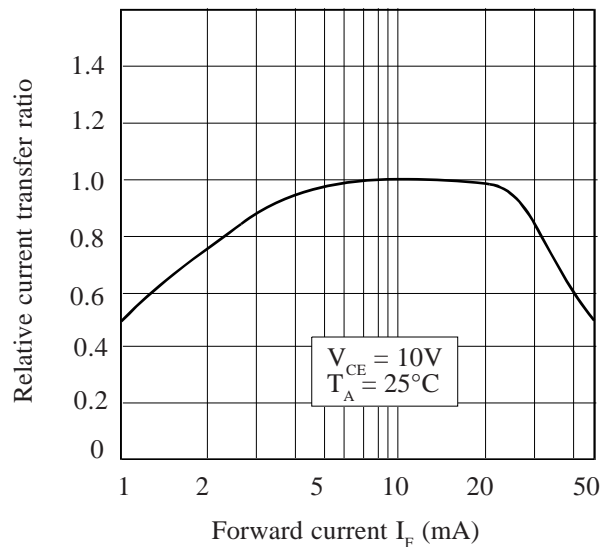
Relative Current Transfer Ratio vs. Ambient Temperature



Collector-emitter Saturation Voltage vs. Ambient Temperature



Relative Current Transfer Ratio vs. Forward Current



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