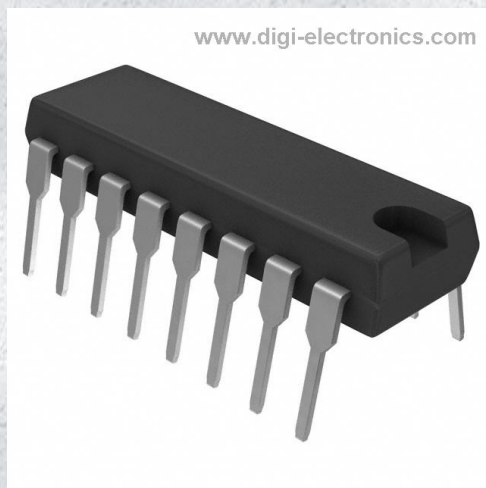


ISQ5 Datasheet



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

DiGi Electronics Part Number	ISQ5-DG
Manufacturer	Isocom Components 2004 LTD
Manufacturer Product Number	ISQ5
Description	16PIN TRANSISTOR OUTPUT, QUAD OP
Detailed Description	Optoisolator Transistor Output 5300Vrms 4 Channel 16-DIP

This model ISQ5 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.

 [Request a Quote](#)

 [Datasheet Search](#)



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:

ISQ5

Series:

ISQ

Number of Channels:

4

Current Transfer Ratio (Min):

50% @ 10mA

Turn On / Turn Off Time (Typ):

-

Input Type:

DC

Voltage - Output (Max):

70V

Voltage - Forward (Vf) (Typ):

1.2V

Vce Saturation (Max):

-

Mounting Type:

Through Hole

Supplier Device Package:

16-DIP

Manufacturer:

Isocom Components 2004 LTD

Product Status:

Active

Voltage - Isolation:

5300Vrms

Current Transfer Ratio (Max):

400% @ 10mA

Rise / Fall Time (Typ):

2.6µs, 2.2µs

Output Type:

Transistor

Current - Output / Channel:

50mA

Current - DC Forward (If) (Max):

50 mA

Operating Temperature:

-25°C ~ 100°C

Package / Case:

16-DIP (0.300", 7.62mm)

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8541.49.8000

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

IS1, IS5, IS74
ISD1, ISD5, ISD74
ISQ1, ISQ5, ISQ74



ISOCOM

COMPONENTS

HIGH DENSITY PHOTOTRANSISTOR OPTICALLY COUPLED ISOLATORS



APPROVALS

- UL recognised, File No. E91231
Package " FF "
- 'X' SPECIFICATION APPROVALS
 - VDE 0884 in 3 available lead form : -
- STD
- G form
- SMD approved to CECC 0080
 - IS1X, IS5X, IS74X are certified to
EN60950 by :-
Nemko - Certificate No. P01102464

DESCRIPTION

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

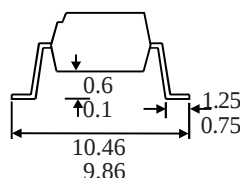
FEATURES

- 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) IS5, ISD5, ISQ5

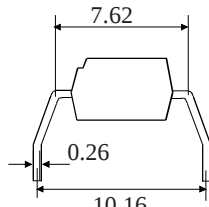
APPLICATIONS

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

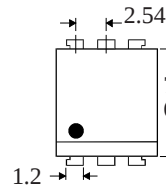
OPTION SM SURFACE MOUNT



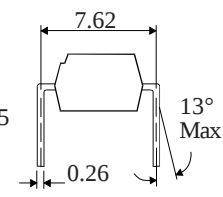
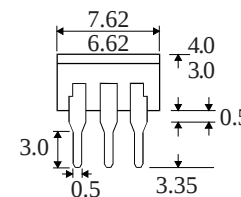
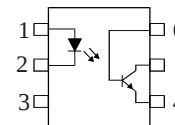
OPTION G



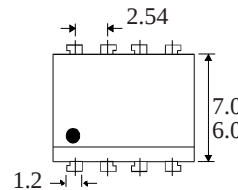
IS1
IS5
IS74



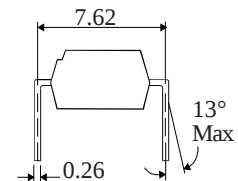
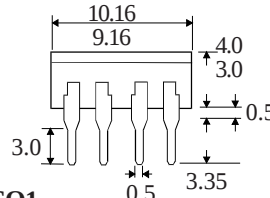
Dimensions in mm



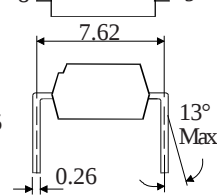
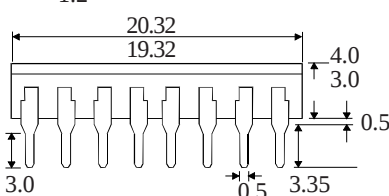
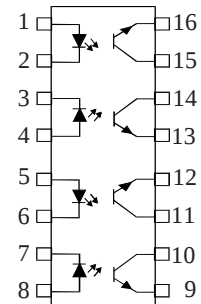
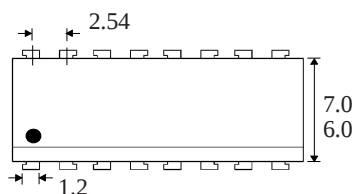
ISD1
ISD5
ISD74



1	8
2	7
3	6
4	5



ISQ1
ISQ5
ISQ74



ISOCOMCOMPONENTSLTD

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}
 IS5, ISD5, ISQ5 _____ 70V
 IS1, ISD1, ISQ1, IS74, ISD74, ISQ74 _____ 50V
 Emitter-collector Voltage BV_{ECO} _____ 6V
 Collector Current _____ 50mA
 Power Dissipation _____ 150mW

POWER DISSIPATION

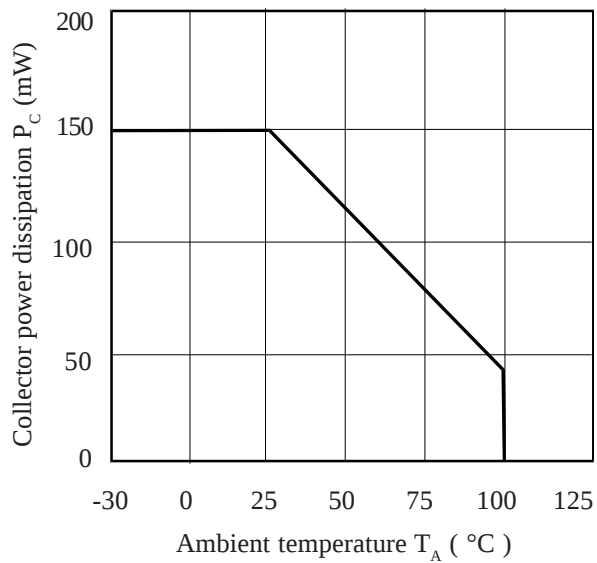
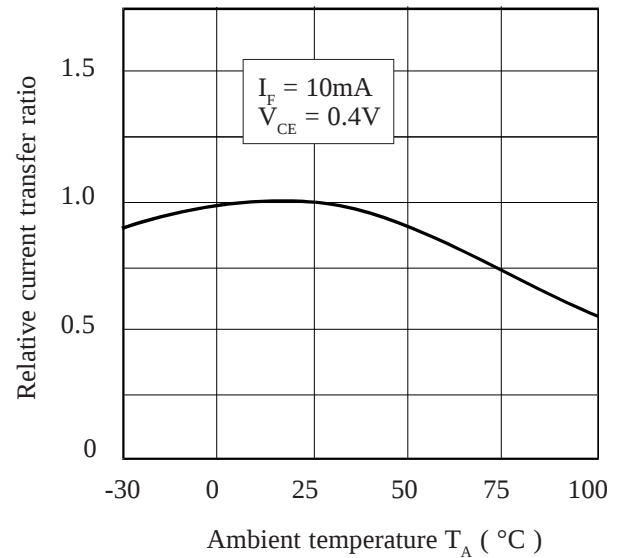
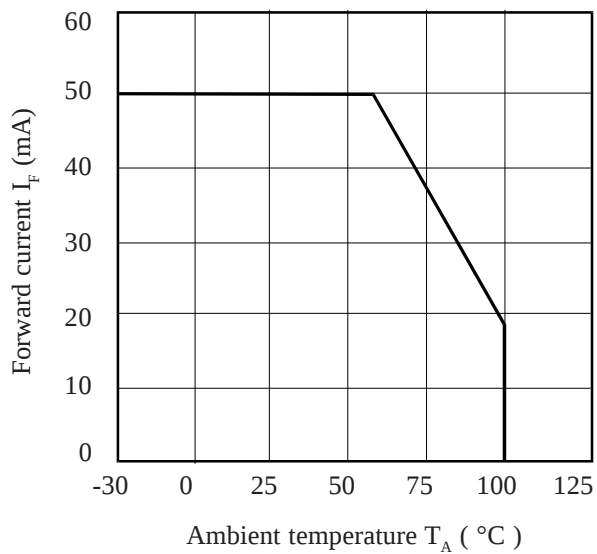
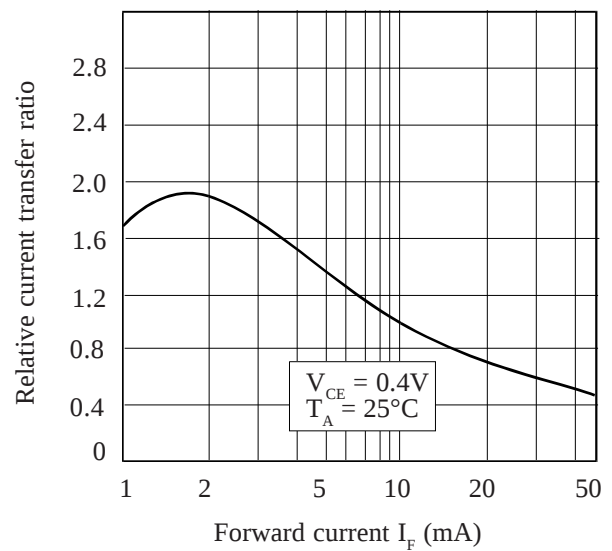
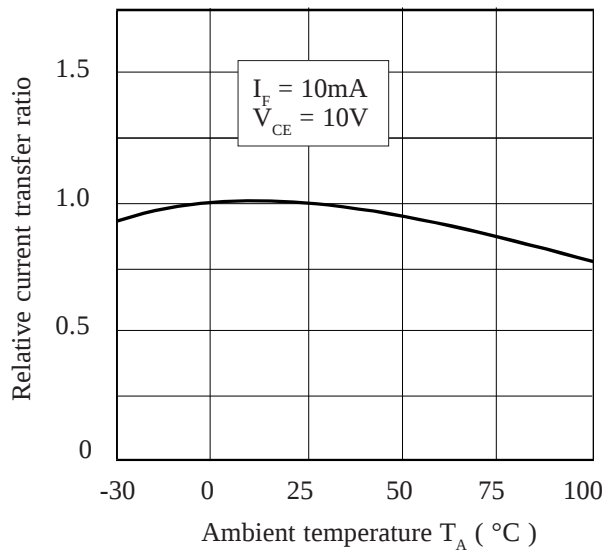
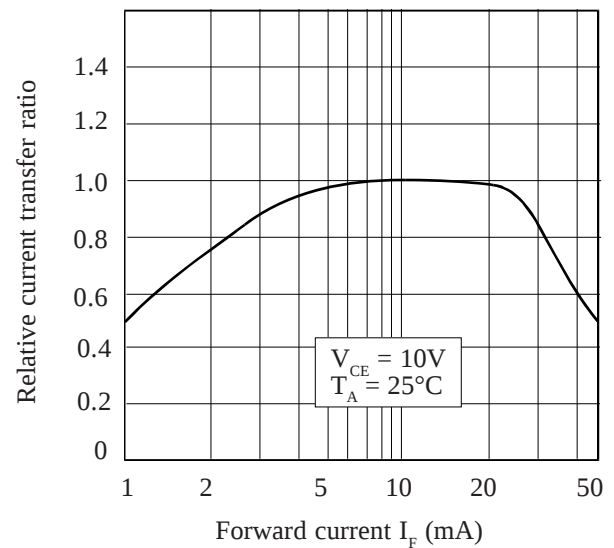
Total Power Dissipation _____ 170mW
 (derate linearly 2.67mW/°C above 25°C)

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}) IS5, ISD5, ISQ5	70			V	$I_C = 1\text{mA}$
	IS1, ISD1, ISQ1, IS74, ISD74, ISQ74	50			V	(Note 2)
	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) IS1, ISD1, ISQ1	20		300	%	10mA I_F , 10V V_{CE}
	IS5, ISD5, ISQ5	50		400	%	10mA I_F , 10V V_{CE}
	IS74, ISD74, ISQ74	12.5			%	16mA I_F , 5V V_{CE}
	Saturated Current Transfer Ratio IS1, ISD1, ISQ1		75		%	10mA I_F , 0.4V V_{CE}
	IS5, ISD5, ISQ5		100		%	10mA I_F , 0.4V V_{CE}
	IS74, ISD74, ISQ74	12.5			%	16mA I_F , 0.5V V_{CE}
	Input to Output Isolation Voltage V_{ISO}	5300			V_{RMS}	See note 1
	Input to Output Isolation Voltage V_{ISO}	7500			V_{PK}	See note 1
	Input-output Isolation Resistance R_{ISO}	5×10^{10}			Ω	$V_{IO} = 500\text{V}$ (note 1)
	Output Rise Time t_r		2.6		μs	$I_F = 5\text{mA}$
	Output Fall Time t_f		2.2		μs	$V_{CC} = 5\text{V}$, $R_L = 75\Omega$

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. Forward Current****Relative Current Transfer Ratio vs. Ambient Temperature****Relative Current Transfer Ratio vs. Forward Current**

OUR CERTIFICATE

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