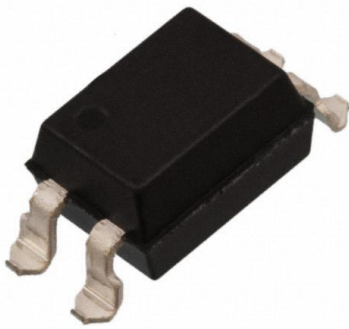


# IS357 Datasheet

www.digi-electronics.com



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

DiGi Electronics Part Number	IS357-DG
Manufacturer	<a href="#">Isocom Components 2004 LTD</a>
Manufacturer Product Number	IS357
Description	OPTOISO 3.75KV TRANS MINI-FLAT
Detailed Description	Optoisolator Transistor Output 3750Vrms 1 Channel 4-SMD

This model IS357 is available at DiGi Electronics.

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Tel: +00 852-30501935

RFQ Email: [Info@DiGi-Electronics.com](mailto:Info@DiGi-Electronics.com)

DiGi is a global authorized distributor of electronic components.

## Purchase and inquiry

Manufacturer Product Number:

IS357

Series:

-

Number of Channels:

1

Current Transfer Ratio (Min):

50% @ 5mA

Turn On / Turn Off Time (Typ):

-

Input Type:

DC

Voltage - Output (Max):

80V

Voltage - Forward (Vf) (Typ):

1.2V

Vce Saturation (Max):

200mV

Mounting Type:

Surface Mount

Supplier Device Package:

4-SMD

Manufacturer:

Isocom Components 2004 LTD

Product Status:

Active

Voltage - Isolation:

3750Vrms

Current Transfer Ratio (Max):

600% @ 5mA

Rise / Fall Time (Typ):

4µs, 3µs

Output Type:

Transistor

Current - Output / Channel:

50mA

Current - DC Forward (If) (Max):

50 mA

Operating Temperature:

-55°C ~ 100°C

Package / Case:

4-SMD, Gull Wing

## Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8541.49.8000

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

IS357



# ISOCOM

# COMPONENTS

## HIGH DENSITY MOUNTING PHOTOTRANSISTOR OPTICALLY COUPLED ISOLATORS



### DESCRIPTION

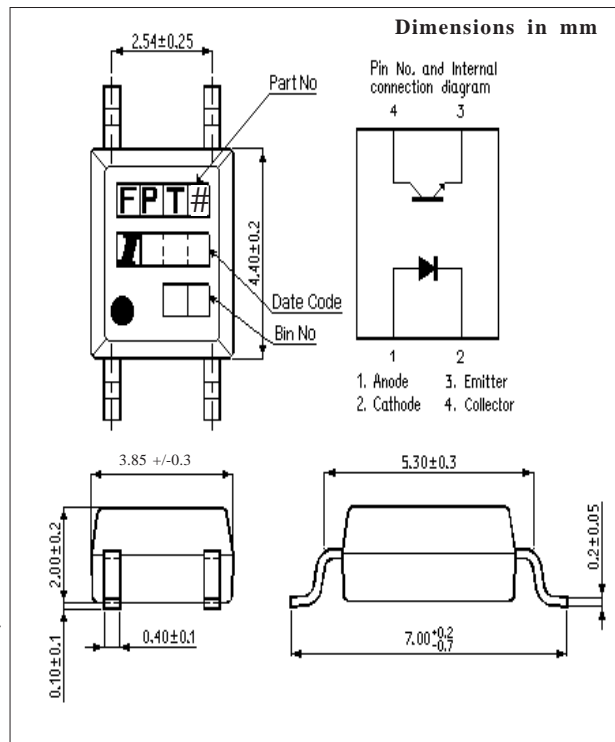
The IS357 is an optically coupled isolator consisting of an infrared light emitting diode and NPN silicon photo transistor in a space efficient dual in line plastic package.

### FEATURES

- Marked as FPT#.
- Current Transfer Ratio MIN. 50%
- Isolation Voltage (3.75kV<sub>RMS</sub>, 5.3kV<sub>PK</sub>)
- All electrical parameters 100% tested
- Drop in replacement for Sharp PC357

### APPLICATIONS

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



### ISOCOM COMPONENTS LTD

Unit 25B, Park View Road West,  
Park View Industrial Estate, Brenda Road  
Hartlepool, Cleveland, TS25 1YD  
Tel: (01429) 863609 Fax : (01429) 863581

**ABSOLUTE MAXIMUM RATINGS**  
(25°C unless otherwise specified)

Storage Temperature \_\_\_\_\_ -55°C to +150°C  
 Operating Temperature \_\_\_\_\_ -55°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  $BV_{CEO}$  \_\_\_\_\_ 80V  
 Emitter-collector Voltage  $BV_{ECO}$  \_\_\_\_\_ 6V  
 Collector Current \_\_\_\_\_ 50mA  
 Power Dissipation \_\_\_\_\_ 150mW

**POWER DISSIPATION**

Total Power Dissipation \_\_\_\_\_ 170mW  
 (derate linearly 2.26mW/°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	1.4	V	$I_F = 20\text{mA}$	
	Reverse Current ( $I_R$ )			10	$\mu\text{A}$	$V_R = 4\text{V}$	
Output	Collector-emitter Breakdown ( $BV_{CEO}$ )	80	>100		V	$I_C = 0.5\text{mA}$	
	Emitter-collector Breakdown ( $BV_{ECO}$ )	6			V	$I_E = 0.1\text{mA}$	
	Collector-emitter Dark Current ( $I_{CEO}$ )			100	nA	$V_{CE} = 20\text{V}$	
Coupled	Current Transfer Ratio (CTR)	50		600	%	$5\text{mA } I_F, 5\text{V } V_{CE}$	
	Optional CTR Grades:	IS357A	80		160	%	$5\text{mA } I_F, 5\text{V } V_{CE}$
		IS357B	130		260	%	$5\text{mA } I_F, 5\text{V } V_{CE}$
		IS357C	200		400	%	$5\text{mA } I_F, 5\text{V } V_{CE}$
		IS357D	300		600	%	$5\text{mA } I_F, 5\text{V } V_{CE}$
	Collector-emitter Saturation Voltage $V_{CE(SAT)}$			0.2	V	$20\text{mA } I_F, 1.0\text{mA } I_C$	
	Input to Output Isolation Voltage $V_{ISO}$	3750 5300			$V_{RMS}$ $V_{PK}$	See note 1 See note 1	
Input-output Isolation Resistance $R_{ISO}$	$5 \times 10^{10}$			$\Omega$	$V_{IO} = 500\text{V}$ (note 1)		
Output Rise Time $t_r$		4	18	$\mu\text{s}$	$V_{CE} = 2\text{V}$ ,		
Output Fall Time $t_f$		3	18	$\mu\text{s}$	$I_C = 2\text{mA}, R_L = 100\Omega$		

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

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