



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



IS849

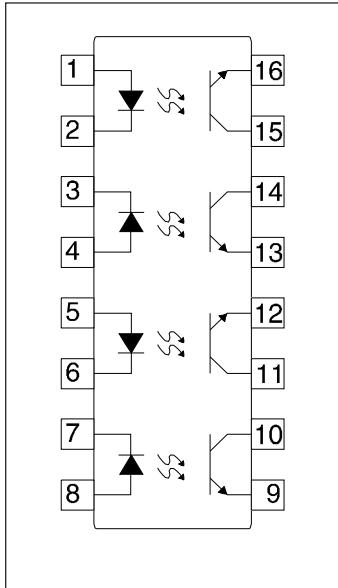


ISOCOM
COMPONENTS

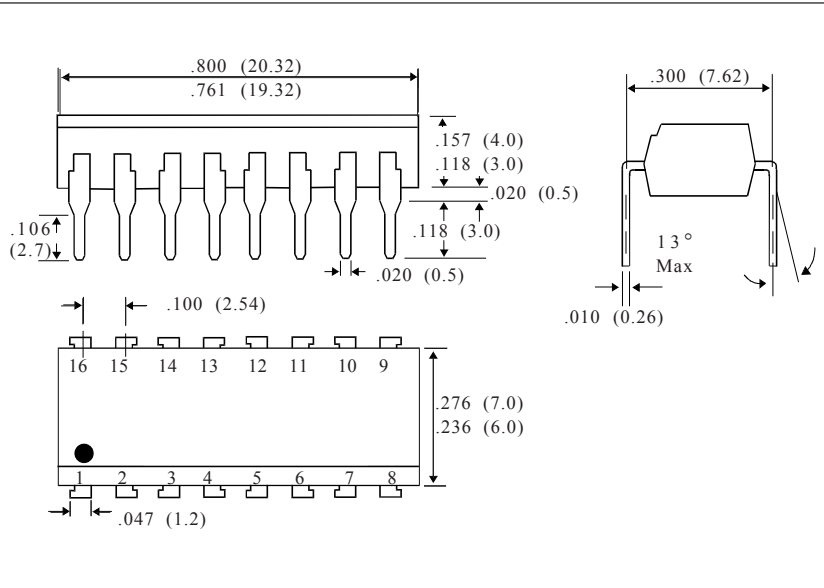


**OPTICALLY COUPLED ISOLATOR
TRANSISTOR OUTPUT**

SCHEMATIC



PACKAGE DIMENSIONS INCHES (MM)



DESCRIPTION

The IS849 is an optically coupled isolator consisting of Gallium Arsenide infrared emitting diodes and NPN silicon phototransistors mounted in a standard 16-pin dual-in-line package with four channels per unit.

FEATURES

- Also available in single, dual package

ABSOLUTE MAXIMUM RATINGS (25°C unless otherwise noted)

Storage Temperature	-55°C to +125°C
Operating Temperature	-30°C to +100°C
Lead Soldering Temperature (2mm from case for 10 seconds)	260°C
Input-to-Output Isolation Voltage	5000V _{RMS}

INPUT DIODE

Forward D.C. Current	50mA
Reverse D.C. Voltage	6V
Peak Forward Current (p.w. ≤ 100µs, duty ratio 0.001)	1A
Power Dissipation (derate linearly 1.33mW/°C above 25°C)	70mW

OUTPUT TRANSISTOR

Collector-emitter Voltage BV _{CEO}	35V
Power Dissipation (derate linearly 1.50mW/°C above 25°C)	150mW

PACKAGE

Total Power Dissipation	170mW
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APPROVALS

- UL Approved Package System " FF "

ISOCOMCOMPONENTSLTD
Unit 25B, Park View Road West,
Park View Industrial Estate, Brenda Road
Hartlepool, Cleveland, TS25 1UD
Tel: (0429) 863609 Fax : (0429) 863581

ELECTRICAL CHARACTERISTICS (25°C unless otherwise noted)

PARAMETER		MIN	TYP	MAX	UNITS	TEST CONDITION
Input	Forward Voltage (V_F)		1.2	1.4	Volt	$I_F = 20 \text{ mA}$
	Reverse Current (I_R)			10	μA	$V_R = 4\text{V}$
Output	Collector-emitter Voltage (BV_{CEO})	35			Volt	$I_C = 1\text{mA}$
	Emitter-collector Voltage (BV_{ECO})	7	9		Volt	$I_E = 0.1 \text{ mA}$
	Collector-emitter Dark Current (I_{CEO})			100	nA	$V_{CE} = 20 \text{ V}$
Coupled	DC Current Transfer Ratio (CTR)	50		400	%	$I_F = 5\text{mA}, V_{CE} = 5\text{V}$
	Collector-emitter Saturation Voltage $V_{CE}(\text{Sat})$			0.2	Volt	$I_F = 20 \text{ mA}, I_C = 1 \text{ mA}$
	Floating Capacitance (C_F)		0.6	1	pf	$V = 0, f = 1 \text{ Mhz}$
	Input-to-Output Isolation Resistance R_{iso}	5×10^{10}	10^{11}		Ω	$V_{IO} = 500\text{V}$ (see note 1)
	Inout to Output Isolation Voltage	5000			V_{RMS}	(note 1)
	Response Time Rise(t_r)			15	μS	$I_C = 2\text{mA}, V_{CE} = 2\text{V}$ $R_L = 100\Omega$
	Response Time Fall (t_f)			15	μS	

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

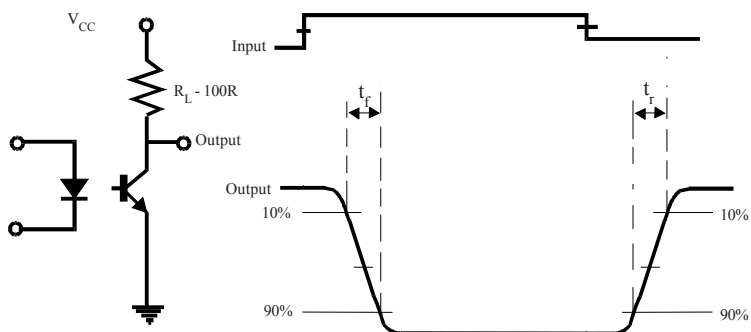


FIG 1