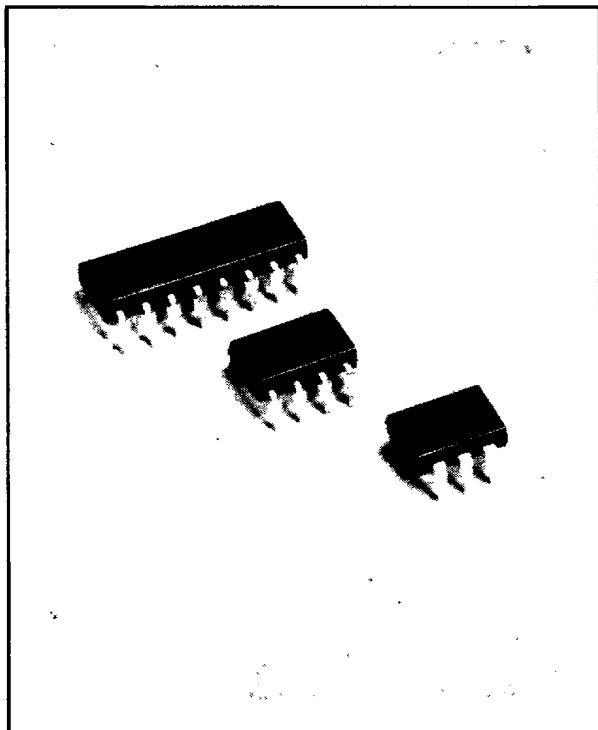




IS-5 ONE CHANNEL ISD-5 TWO CHANNEL ISQ-5 FOUR CHANNEL OPTICALLY COUPLED ISOLATORS

ISOCOM, INC.
274 E. HAMILTON AVE.
SUITE F
CAMPBELL, CA. 95008



FEATURES

- 2500 Volt Isolation
- High current transfer ratio
- Low cost dual-in-line package
- Single, dual, quad configuration

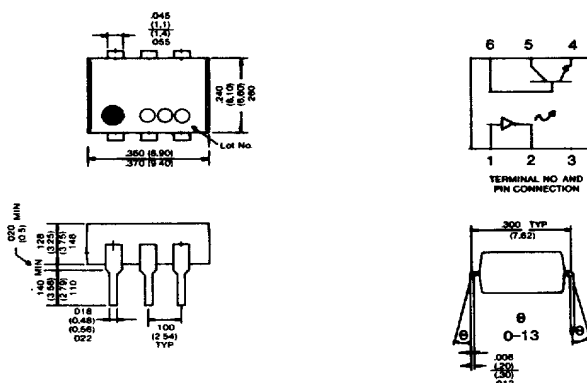
DESCRIPTION

The IS-5, ISD-5, ISQ-5 are optically coupled isolators. Each channel consists of a Gallium Arsenide infrared emitting diode and a NPN silicon phototransistor mounted in standard plastic dual-in-line packages. The IS-5 is a single channel isolator. The ISD-5 offers two channels per unit and the ISQ-5 offers four channels per unit.

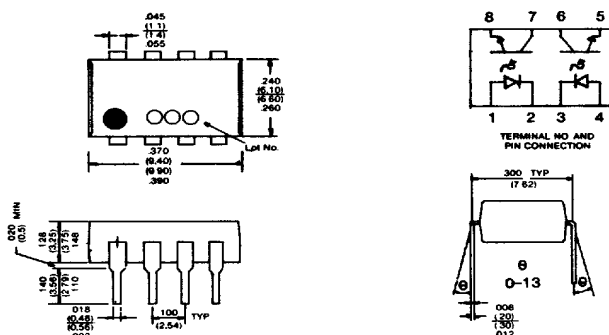
All electrical parameters are 100% tested. Specifications are guaranteed to a cumulative .65% AQL.

Package Dimensions in Inches (mm)

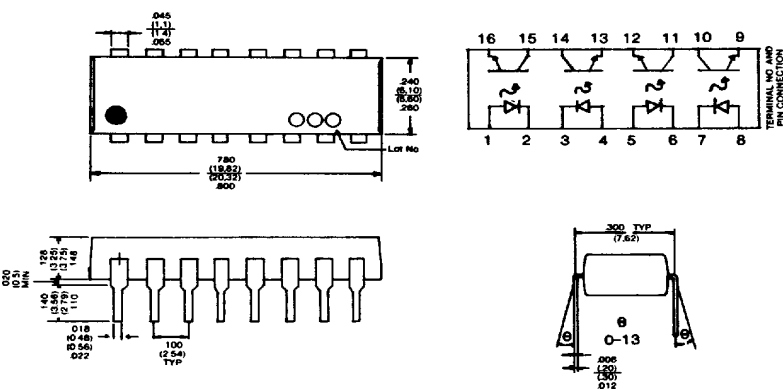
SINGLE CHANNEL (IS-5)



TWO CHANNEL (ISD-5)



FOUR CHANNEL (ISQ-5)



ABSOLUTE MAXIMUM RATINGS (25°C unless otherwise noted)

Storage Temperature -55°C to +150°C
 Operating Temperature -55°C to +100°C
 Lead Soldering Temperature (1/16 inch (1.6 mm) from case for 10 seconds) 260°C
 Input-to-Output Isolation Voltage (see note 1) ± 2500 VDC

Input Diode

Forward DC Current 60 mA
 Reverse DC Voltage 3 V
 Peak Forward Current (PW. $\leq 100 \mu\text{s}$, duty ratio 0.001) 1 A
 Power Dissipation (derate linearly 1.33 mW/°C above 25°C) 100 mW

Output Transistor

Collector-emitter voltage 30 V
 Emitter-collector voltage 7 V
 Power Dissipation (derate linearly 2.00 mW/°C 25°C) 150 mW

Package**Total Power Dissipation**

IS-5 (Derate linearly 2.67 mW/°C above 25°C) 200 mW
 ISD-5 (Derate linearly 5.33 mW/°C above 25°C) 400 mW
 ISQ-5 (Derate linearly 6.67 mW/°C above 25°C) 500 mW

ELECTRICAL CHARACTERISTICS (25°C unless otherwise noted)

	Parameter	Min.	Typ	Max	Units	Test Condition
Input	Forward Voltage (V_F)		1.3	1.5	Volt	$I_F = 60 \text{ mA}$
	Reverse Current (I_R)			10	μA	$V_R = 3 \text{ V}$
Output	Collector-emitter Voltage (BV_{CEO})	30	50		Volt	$I_C = 1 \text{ mA}$
	Emitter-collector Voltage (BV_{ECO})	7	8		Volt	$I_E = 0.1 \text{ mA}$
	Collector-emitter Dark Current (I_{CEO})			50	nA	$V_{CE} = 10 \text{ V}$
Coupled	DC Current Transfer Ratio (CTR)	50	80		%	$I_F = 10 \text{ mA}, V_{CE} = 10 \text{ V}$
	Collector-emitter Saturation Voltage $V_{CE}(\text{Sat})$		0.2	0.5	Volt	$I_F = 16 \text{ mA}, I_C = 1.6 \text{ mA}$
	Floating Capacitance (C_F)		0.6	1.0	pf	$V = 0 \quad f = 1 \text{ mhz}$
	Input-to-Output Isolation Resistance R_{iso}	5×10^{11}			ohm	$V_{IO} = 500 \text{ V}$ (see note 1)

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