



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!



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HIGH DENSITY MOUNTING PHOTOTRANSISTOR OPTICALLY COUPLED ISOLATORS



DESCRIPTION

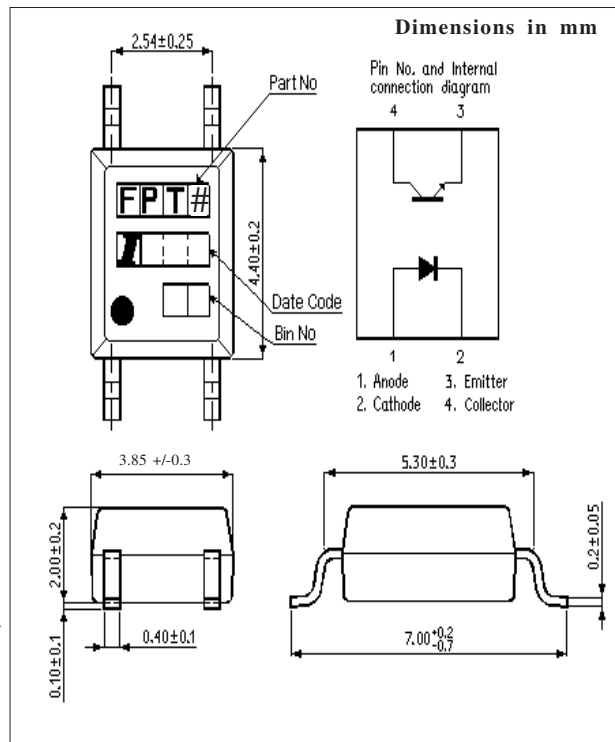
The IS357 is an optically coupled isolator consisting of an infrared light emitting diode and NPN silicon photo transistor in a space efficient dual in line plastic package.

FEATURES

- Marked as FPT#.
- Current Transfer Ratio MIN. 50%
- Isolation Voltage (3.75kV_{RMS}, 5.3kV_{PK})
- 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



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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	μA	$V_R = 4\text{V}$	
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}	5×10^{10}			Ω	$V_{IO} = 500\text{V}$ (note 1)		
Output Rise Time t_r		4	18	μs	$V_{CE} = 2\text{V}$,		
Output Fall Time t_f		3	18	μs	$I_C = 2\text{mA}, R_L = 100\Omega$		

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