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

H11B1X, H11B2X, H11B3X
H11B1, H11B2, H11B3

OPTICALLY COUPLED ISOLATOR PHOTODARLINGTON OUTPUT

ROHS COMPLIANT

APPROVALS

- UL recognised, File No. E91231

'X' SPECIFICATION APPROVALS

- VDE 0884 in 2 available lead form :
  - STD
  - G form

  VDE 0884 in SMD approval pending
- SETI approved, reg. no.151786-18

DESCRIPTION

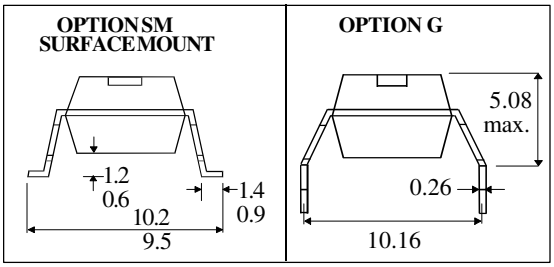
The H11B_ series of optically coupled isolators consist of an infrared light emitting diode and NPN silicon photodarlington in a space efficient dual in line plastic package.

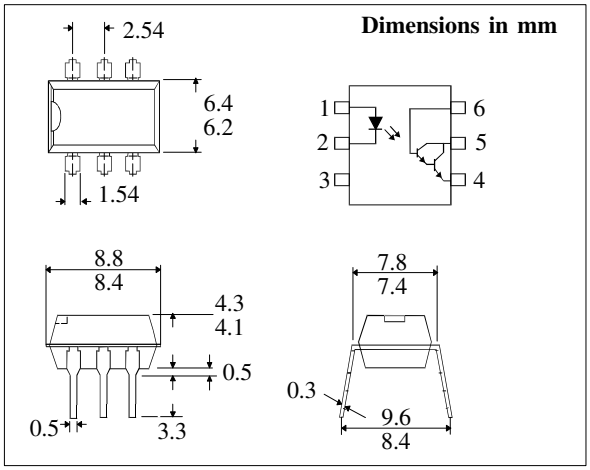
FEATURES

- 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 Current Transfer Ratio
- High Isolation Voltage (5.3kV$_{RMS}$,7.5kV$_{PK}$)
- All electrical parameters 100% tested
- Custom electrical selections available

APPLICATIONS

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





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	80mA
Reverse Voltage	5V
Power Dissipation	105mW

OUTPUT TRANSISTOR

Collector-emitter Voltage BV$_{CEO}$	30V
Collector-base Voltage BV$_{CBO}$	50V
Emitter-collector Voltage BV$_{ECO}$	5V
Power Dissipation	150mW

POWER DISSIPATION

Total Power Dissipation	250mW
(derate linearly 3.3mW/°C above 25°C)	

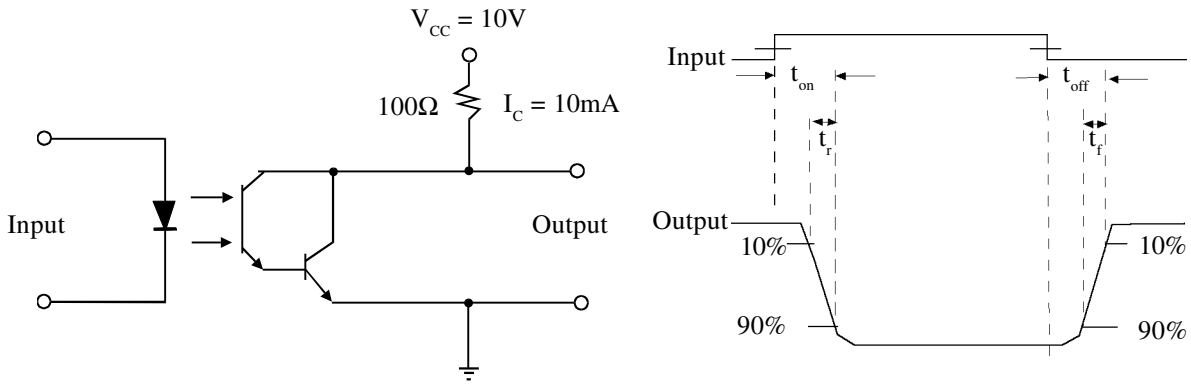
ISOCOM COMPONENTS LTD
Unit 25B, Park View Road West,
Park View Industrial Estate, Brenda Road
Hartlepool, Cleveland, TS25 1YD
Tel: (01429) 863609 Fax :(01429) 863581

ELECTRICAL CHARACTERISTICS (T_A = 25°C Unless otherwise noted)

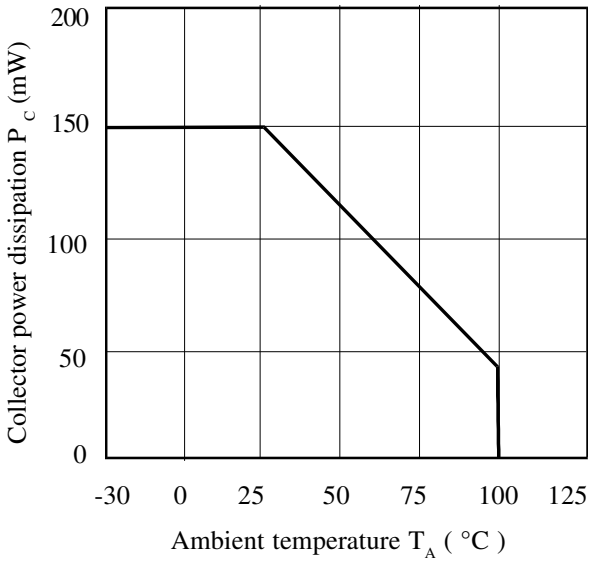
PARAMETER		MIN	TYP	MAX	UNITS	TEST CONDITION
Input	Forward Voltage (V_F)		1.2	1.5	V	I_F = 10mA
	Reverse Voltage (V_R)	3			V	I_R = 10µA
	Reverse Current (I_R)			10	µA	V_R = 3V
Output	Collector-emitter Breakdown (BV_{CEO})	30			V	I_C = 1mA (note 2)
	Collector-base Breakdown (BV_{CBO})	30			V	I_C = 100µA
	Emitter-collector Breakdown (BV_{ECO})	5			V	I_E = 100µA
	H_{FE}		16K			V_{CE} = 5V, I_C = 5mA
	Collector-emitter Dark Current (I_{CEO})			100	nA	V_{CE} = 10V
Coupled	Current Transfer Ratio (CTR)(Note 2)					
	H11B1	500			%	1mA I_F, 5V V_{CE}
	H11B2	200			%	1mA I_F, 5V V_{CE}
	H11B3	100			%	1mA I_F, 5V V_{CE}
	Collector-emitter Saturation Voltage $V_{CE(SAT)}$			1.0	V	1mA I_F, 1mA I_C
	Input to Output Isolation Voltage V_{ISO}	5300			V_{RMS}	(note 1)
		7500			V_{PK}	(note 1)
	Input-output Isolation Resistance R_{ISO}	$5x10^{10}$			Ω	V_{IO} = 500V (note 1)
	Output Turn on Time ton		125		µs	V_{CC}= 10V, I_C = 10mA,
	Output Turn off Time toff		100		µs	R_L = 100Ω , fig.1

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.

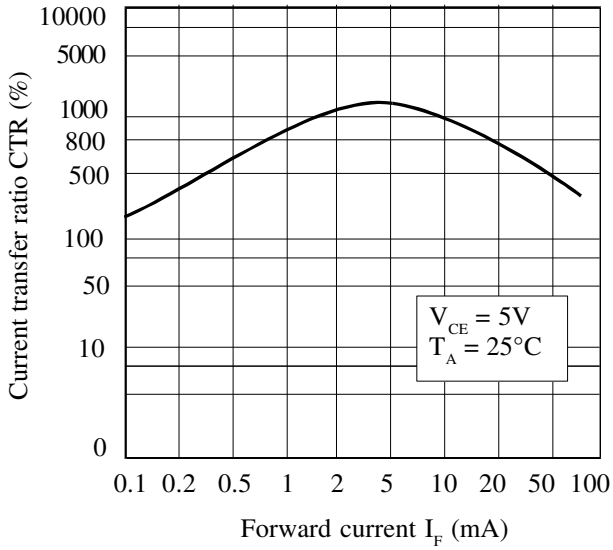
FIGURE 1



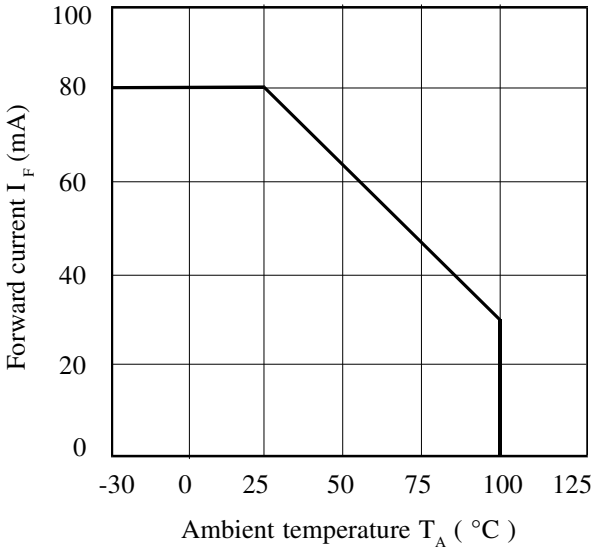
Collector Power Dissipation vs. Ambient Temperature



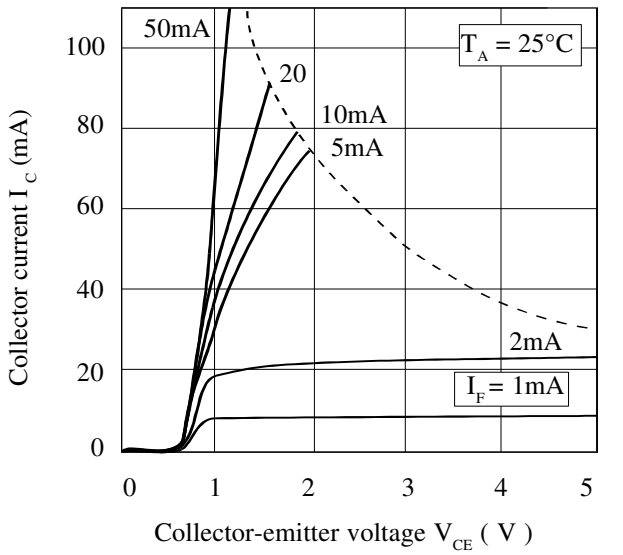
Current Transfer Ratio vs. Forward Current



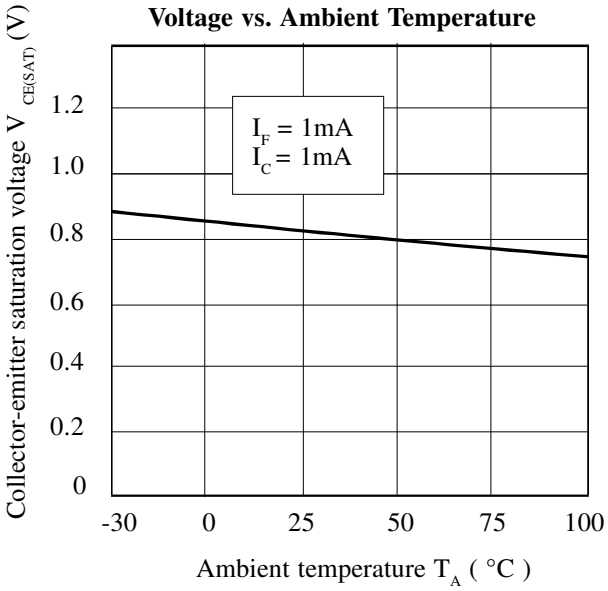
Forward Current vs. Ambient Temperature



Collector Current vs. Collector-emitter Voltage



Collector-emitter Saturation Voltage vs. Ambient Temperature



Normalised Current Transfer Ratio vs. Ambient Temperature