



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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TLP620X, TLP620-2X, TLP620-4X
TLP620, TLP620-2, TLP620-4



ISOCOM
COMPONENTS



**HIGH DENSITY A.C. INPUT
PHOTOTRANSISTOR OPTICALLY
COUPLED ISOLATORS**

APPROVALS

- UL recognised, File No. E91231
Package Code "EE"

'X' SPECIFICATION APPROVALS

- VDE 0884 in 3 available lead forms :-
- STD
- G form
- SMD approved to CECC 00802

DESCRIPTION

The TLP620, TLP620-2, TLP620-4 series of optically coupled isolators consist of two infrared light emitting diodes connected in inverse parallel and NPN silicon photo transistors in space efficient dual in line plastic packages.

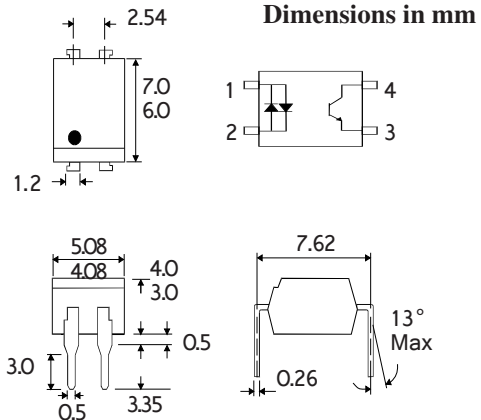
FEATURES

- 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 Isolation Voltage (5.3kV_{RMS}, 7.5kV_{PK})
- AC or polarity insensitive input
- All electrical parameters 100% tested
- Custom electrical selections available

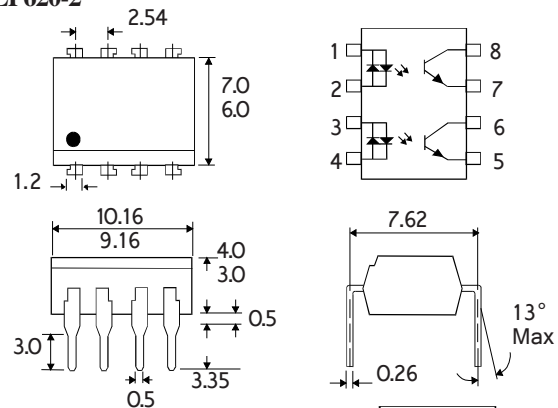
APPLICATIONS

- Computer terminals
- Industrial systems controllers
- Telephone sets, Telephone exchangers
- Signal transmission between systems of different potentials and impedances

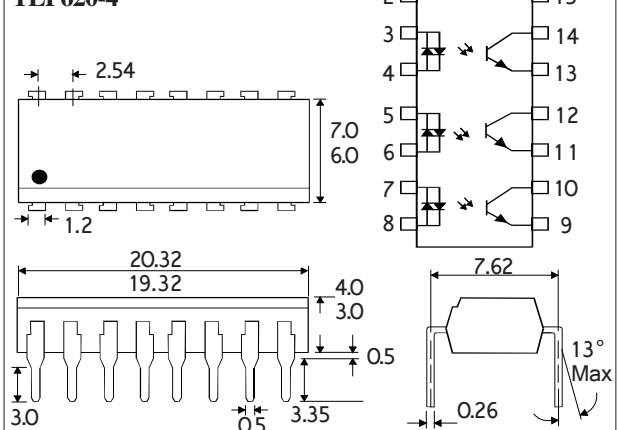
TLP620



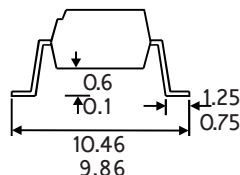
TLP620-2



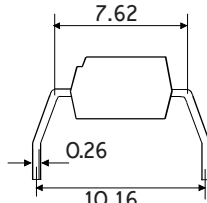
TLP620-4



**OPTION SM
SURFACE MOUNT**



OPTION G



ISOCOM COMPONENTS LTD

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ABSOLUTE MAXIMUM RATINGS

(25°C unless otherwise specified)

Storage Temperature _____	-55°C to +125°C
Operating Temperature _____	-30°C to +100°C
Lead Soldering Temperature (1/16 inch (1.6mm) from case for 10 secs)	260°C

INPUT DIODE

Forward Current _____	±50mA
Power Dissipation _____	70mW

OUTPUT TRANSISTOR

Collector-emitter Voltage BV_{CEO} _____	55V
Emitter-collector Voltage BV_{ECO} _____	6V
Collector Current _____	50mA
Power Dissipation _____	150mW

POWER DISSIPATION

Total Power Dissipation _____	200mW
(derate linearly 2.67mW/°C above 25°C)	

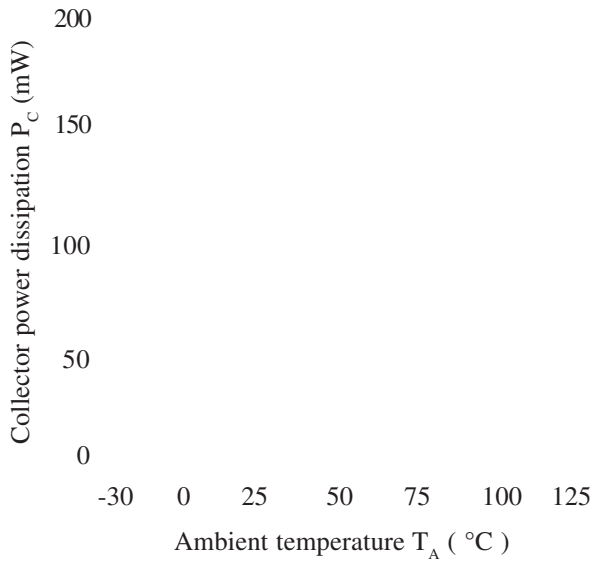
ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ Unless otherwise noted)

PARAMETER		MIN	TYP	MAX	UNITS	TEST CONDITION
Input	Forward Voltage (V_F)	1.0	1.15	1.3	V	$I_F = \pm 10\text{mA}$
Output	Collector-emitter Breakdown (BV_{CEO}) (Note 2)	55			V	$I_C = 0.5\text{mA}$
	Emitter-collector Breakdown (BV_{ECO})	6			V	$I_E = 100\mu\text{A}$
	Collector-emitter Dark Current (I_{CEO})			100	nA	$V_{CE} = 20\text{V}$
Coupled	Current Transfer Ratio (CTR) (Note 2) TLP620, TLP620-2, TLP620-4	50		600	%	$\pm 5\text{mA} I_F, 5\text{V} V_{CE}$
	CTR selection available GB	100		600	%	$\pm 5\text{mA} I_F, 5\text{V} V_{CE}$
		30			%	$\pm 1\text{mA} I_F, 0.4\text{V} V_{CE}$
	Collector-emitter Saturation Voltage $V_{CE(SAT)}$ GB			0.4	V	$\pm 8\text{mA} I_F, 2.4\text{mA} I_C$
				0.4	V	$\pm 1\text{mA} I_F, 0.2\text{mA} I_C$
	Input to Output Isolation Voltage V_{ISO}	5300			V_{RMS} V_{PK}	See note 1
		7500				See note 1
Input-output Isolation Resistance R_{ISO}	5×10^{10}			Ω	$V_{IO} = 500\text{V}$ (note 1)	
Rise Time, tr		4	18	μs	$V_{CE} = 2\text{V},$	
Fall Time, tf		3	18	μs	$I_C = 2\text{mA}, R_L = 100\Omega$	

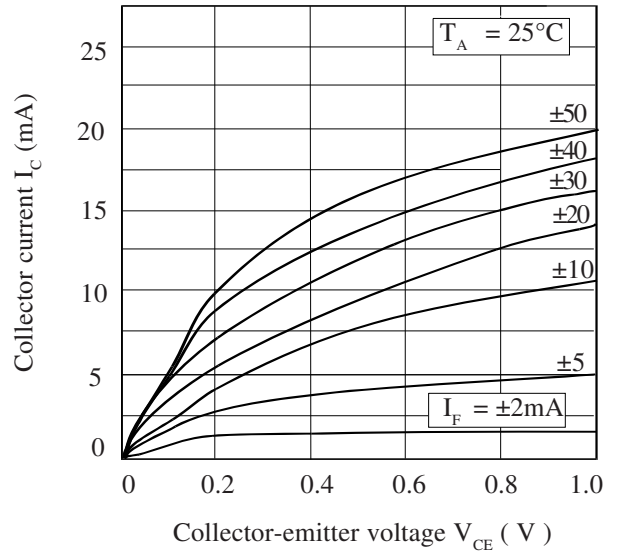
Note 1 Measured with input leads shorted together and output leads shorted together.

Note 2 Special Selections are available on request. Please consult the factory.

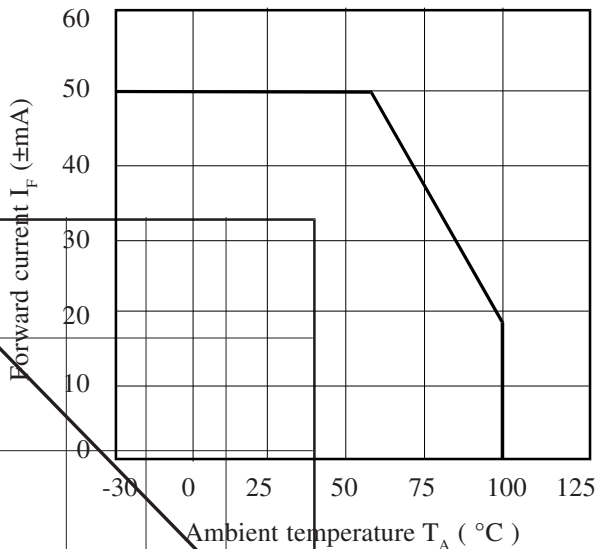
Collector Power Dissipation vs. Ambient Temperature



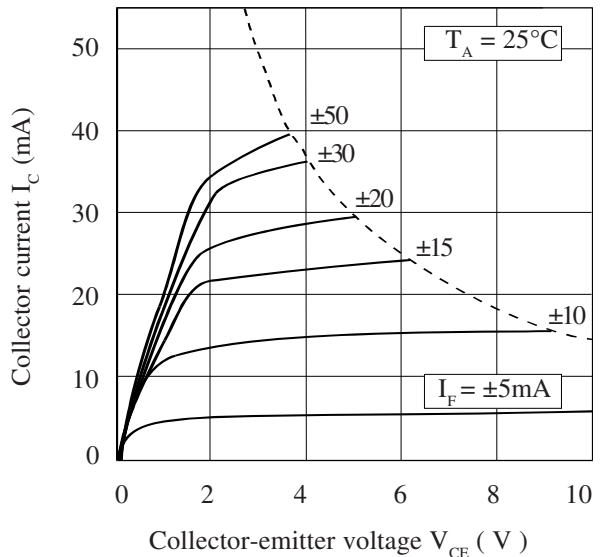
Collector Current vs. Low Collector-emitter Voltage



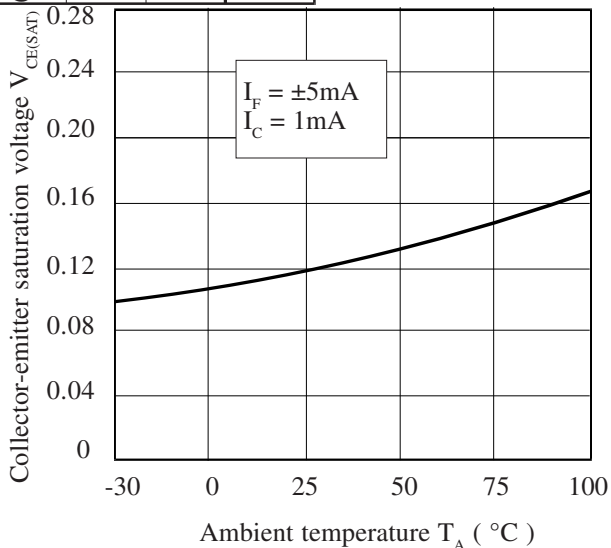
Forward Current vs. Ambient Temperature



Collector Current vs. Collector-emitter Voltage



Collector-emitter Saturation Voltage vs. Ambient Temperature



Current Transfer Ratio vs. Forward Current

