

**HIGH DENSITY MOUNTING
 PHOTOTRANSISTOR
 OPTICALLY COUPLED ISOLATORS**



APPROVALS

- UL recognised, File No. E91231
- 'X' SPECIFICATION APPROVALS
 - VDE 0884 in 3 available lead form :-
 - STD
 - G form
 - SMD approved to CECC 00802
 - BSI approved - Certificate No. 8001

DESCRIPTION

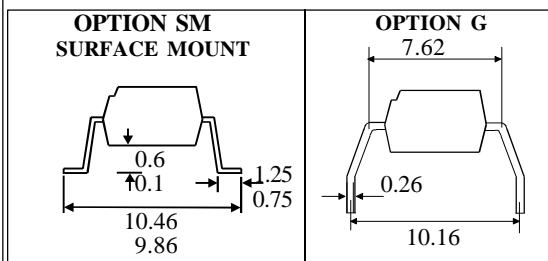
The TLP521, TLP521-2, TLP521-4 series of optically coupled isolators consist of infrared light emitting diodes and NPN silicon photo transistors in space efficient dual in line plastic packages.

FEATURES

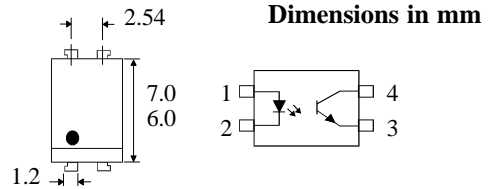
- Options :-
 - 10mm lead spread - add G after part no.
 - Surface mount - add SM after part no.
 - Tape&reel - add SMT&R after part no.
- High Current Transfer Ratio (50% min)
- High Isolation Voltage (5.3kV_{RMS}, 7.5kV_{PK})
- High BV_{CEO} (55Vmin)
- All electrical parameters 100% tested
- Custom electrical selections available

APPLICATIONS

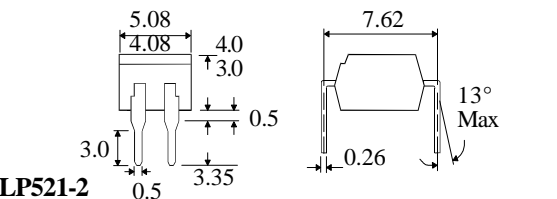
- Computer terminals
- Industrial systems controllers
- Measuring instruments
- Signal transmission between systems of different potentials and impedances



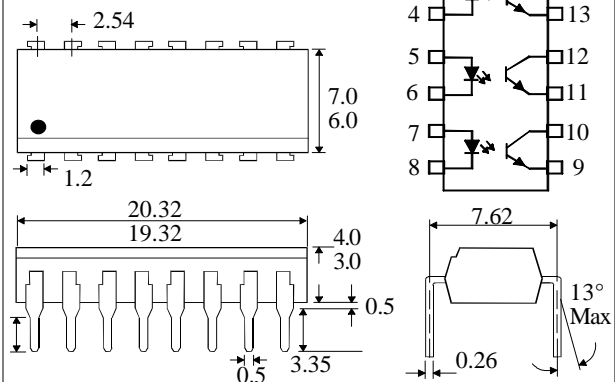
TLP521



TLP521-2



TLP521-4



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

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
 Reverse Voltage _____ 6V
 Power Dissipation _____ 70mW

OUTPUT TRANSISTOR

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

POWER DISSIPATION

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

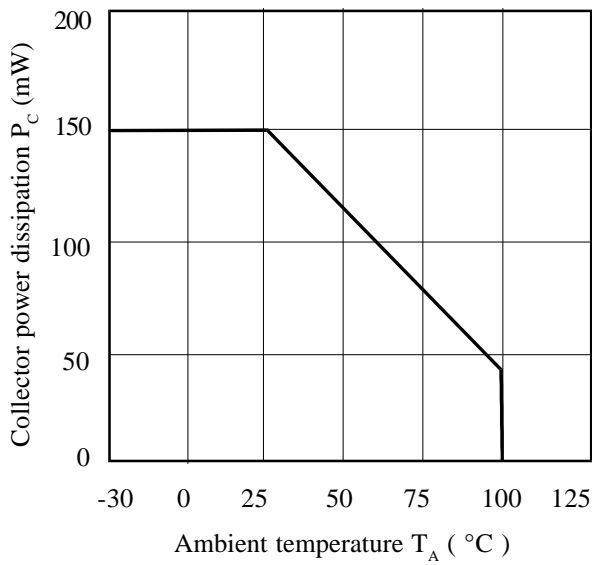
ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ Unless otherwise noted)

PARAMETER		MIN	TYP	MAX	UNITS	TEST CONDITION
Input	Forward Voltage (V_F)	1.0	1.15	1.3	V	$I_F = 10\text{mA}$
	Reverse Current (I_R)			10	μA	$V_R = 4\text{V}$
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) TLP521, TLP521-2, TLP521-4	50		600	%	$5\text{mA } I_F, 5\text{V } V_{CE}$
	CTR selection available BL	200		600	%	
	GB	100		600	%	
	GB	30			%	$1\text{mA } I_F, 0.4\text{V } V_{CE}$
	Collector-emitter Saturation Voltage $V_{CE(SAT)}$ -GB			0.4	V	$8\text{mA } I_F, 2.4\text{mA } I_C$
				0.4	V	$1\text{mA } I_F, 0.2\text{mA } I_C$
	Input to Output Isolation Voltage V_{ISO}	5300 7500			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)
Response Time (Rise), tr		4		μs	$V_{CE} = 2\text{V}$,	
Response Time (Fall), tf		3		μs	$I_C = 2\text{mA}, R_L = 100\Omega$	

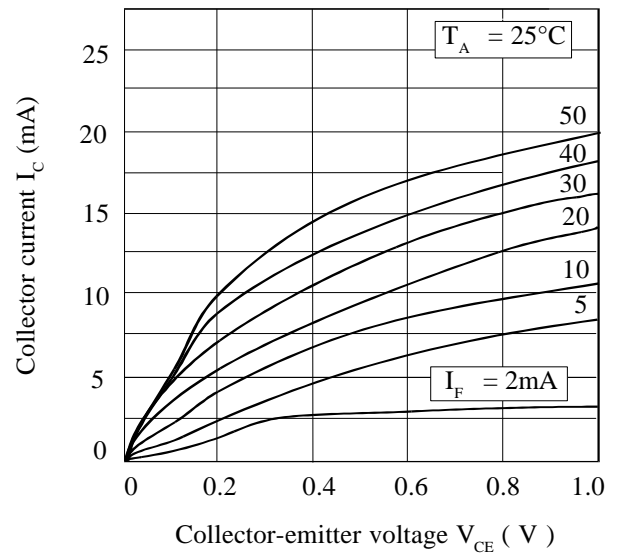
Note 1 Measured with input leads shorted together and output leads shorted together.

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

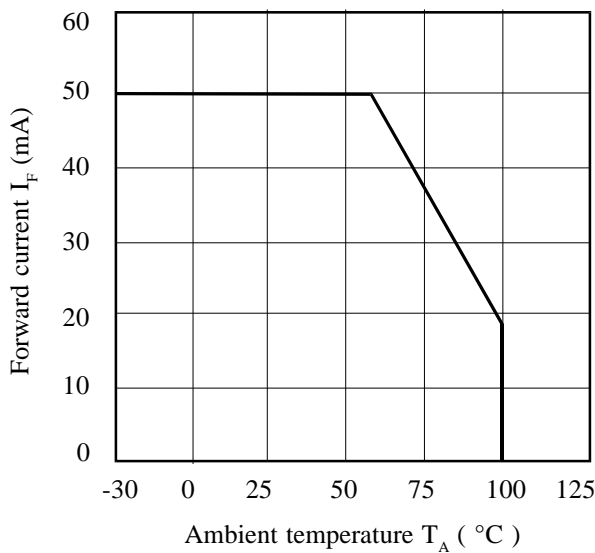
Collector Power Dissipation vs. Ambient Temperature



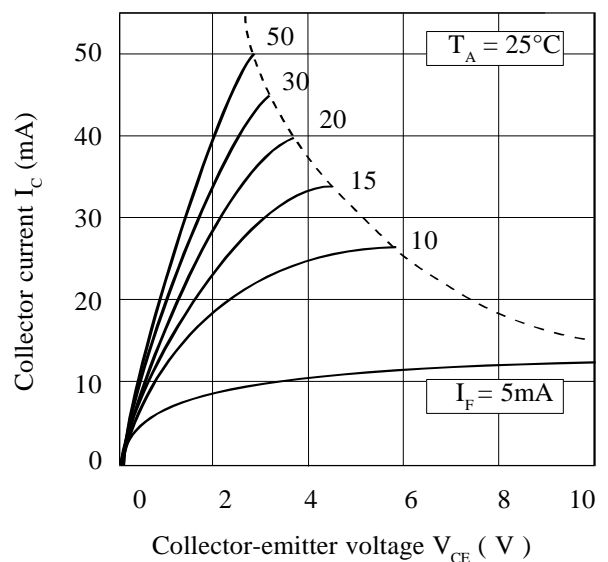
Collector Current vs. Low Collector-emitter Voltage



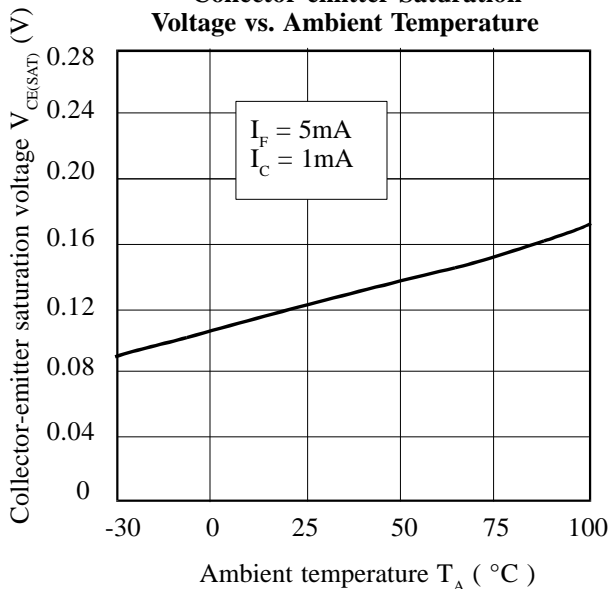
Forward Current vs. Ambient Temperature



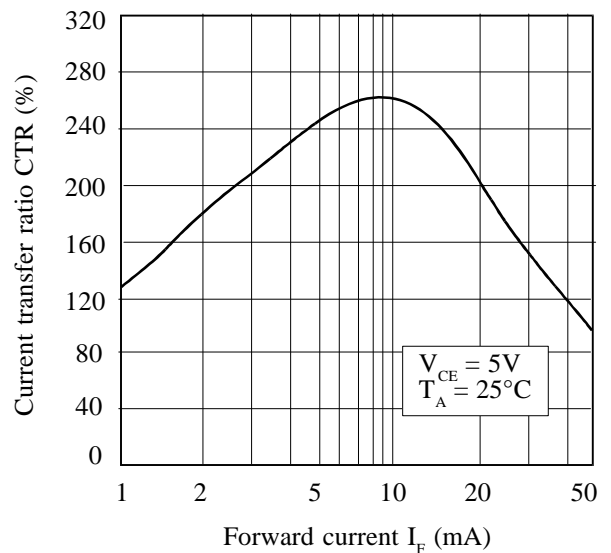
Collector Current vs. Collector-emitter Voltage



Collector-emitter Saturation Voltage vs. Ambient Temperature



Current Transfer Ratio vs. Forward Current



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [High Speed Optocouplers](#) category:

Click to view products by [Isocom](#) manufacturer:

Other Similar products are found below :

[6N136F](#) [HCPL-2201-300](#) [JAN4N24](#) [610737H](#) [HCPL2630M](#) [HCPL2630SM](#) [PS9817A-1-F3-AX](#) [PS9821-2-F3-AX](#) [TLP2766A\(E](#)
[TLP2766A\(LF4,E](#) [PS9121-F3-AX](#) [PS9123-F3-AX](#) [TLP5774H\(TP4,E](#) [TLP5771H\(TP,E](#) [TLP2304\(E\(O](#) [054279X](#) [HCPL2631SD](#) [HCPL-2730-](#)
[500E](#) [TLP118\(TPL,E\)](#) [TLP2309\(E\(T](#) [TLP2366\(TPL,E](#) [TLP521-2XGB](#) [TLP621-2XGB](#) [JANTXV4N24U](#) [8102802PC](#) [5962-8767902XA](#)
[5962-8876801XA](#) [5962-8957101PA](#) [SFH6318T](#) [6N135-300E](#) [TIL198](#) [TLP104\(TPR,E\)](#) [TLP2309\(TPL,E\)](#) [TLP2355\(TPL,E](#) [TLP2358\(E\)](#)
[TLP521-4GR](#) [TLP521-4XGB](#) [TLP621XSM](#) [5962-8876801PA](#) [IS281-4GB](#) [IS2805-4](#) [IS181GR](#) [ICPL2630](#) [ICPL2531](#) [ICPL2601](#) [ICPL2530](#)
[TLP2301](#) [TLP2301\(E\(T](#) [TLP2362\(TPR,E](#) [FOD0710R2](#)