

ISP626-1X,ISP626-2X,ISP626-4X
ISP626-1, ISP626-2, ISP626-4



ISOCOM
COMPONENTS



**LOW INPUT CURRENT 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 form :-
- STD
- G form
- SMD approved to CECC 00802
- ISP626-1X Certified to EN60950 by
Nemko - Certificate No. P01102465

DESCRIPTION

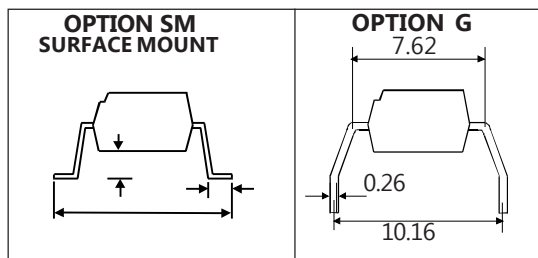
The ISP626-1, ISP626-2, ISP626-4 series of optically coupled isolators consist of two infrared light emitting diodes connected in inverse parallel and NPN silicon photo transistors in space efficient dual in line plastic packages.

FEATURES

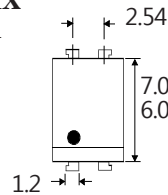
- Options :-
10mm lead spread - add G after part no.
Surface mount - add SM after part no.
Tape&reel - add SMT&R after part no.
- Low input current $\pm 0.5\text{mA } I_F$
- High Isolation Voltage ($5.3\text{kV}_{\text{RMS}}, 7.5\text{kV}_{\text{PK}}$)
- AC or polarity insensitive input
- All electrical parameters 100% tested
- Custom electrical selections available

APPLICATIONS

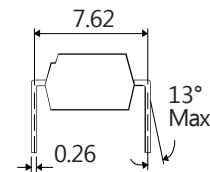
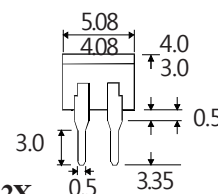
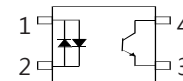
- Computer terminals
- Industrial systems controllers
- Telephone sets, Telephone exchangers
- Signal transmission between systems of different potentials and impedances



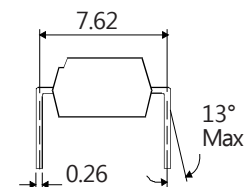
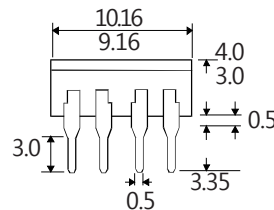
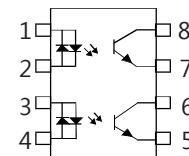
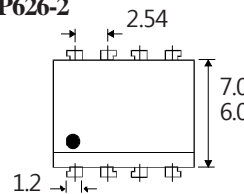
**ISP626-1X
ISP626-1**



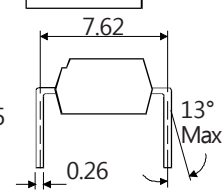
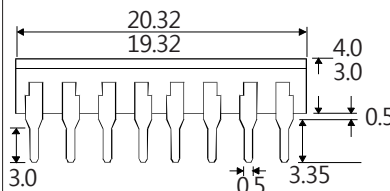
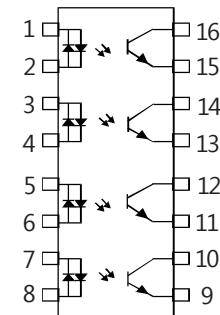
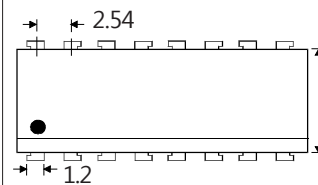
Dimensions in mm



**ISP626-2X
ISP626-2**

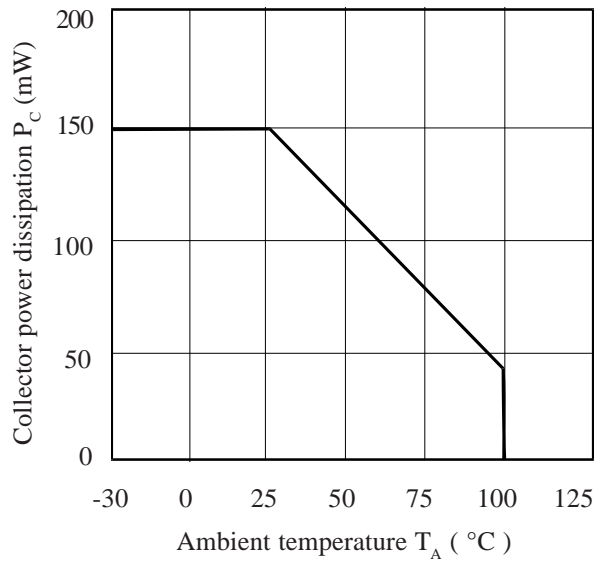


**ISP626-4X
ISP626-4**

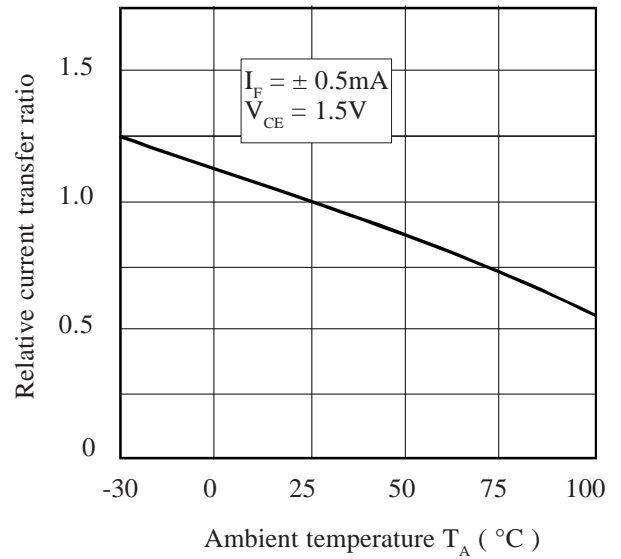


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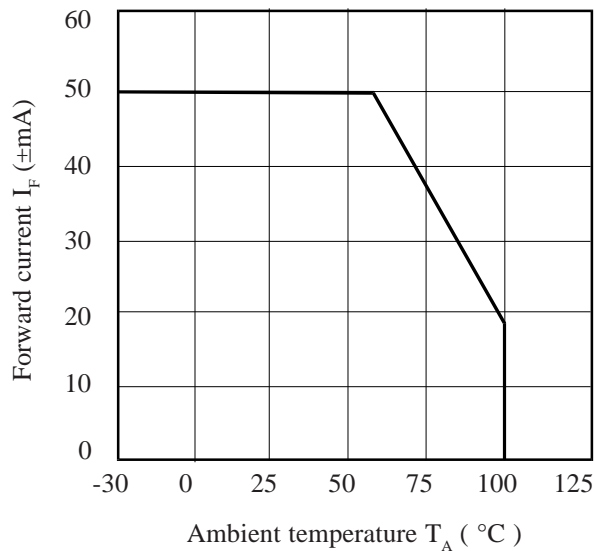
Collector Power Dissipation vs. Ambient Temperature



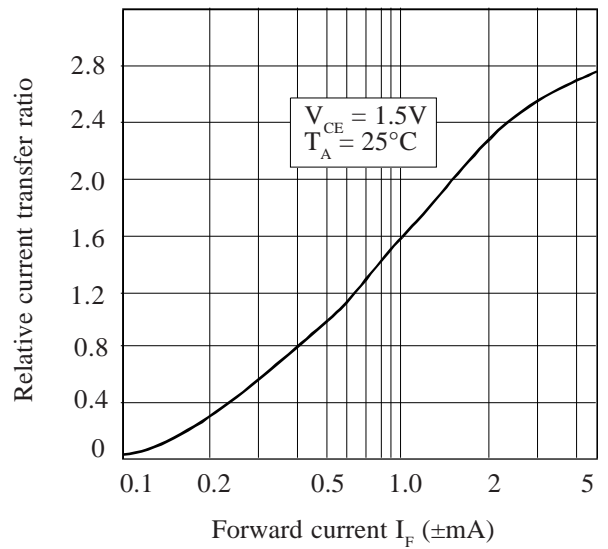
Relative Current Transfer Ratio vs. Ambient Temperature



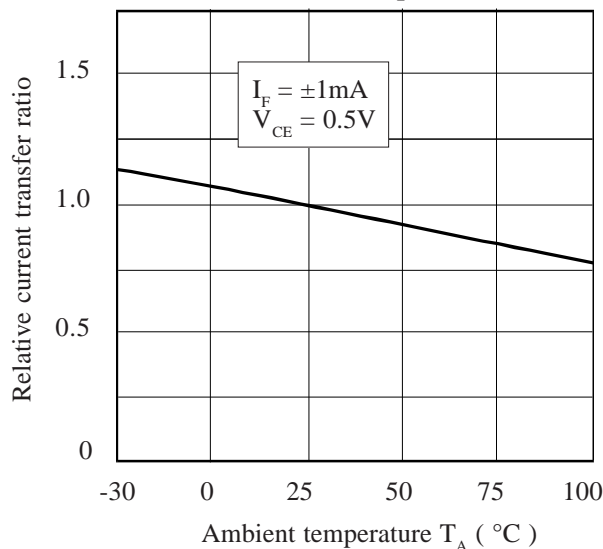
Forward Current vs. Ambient Temperature



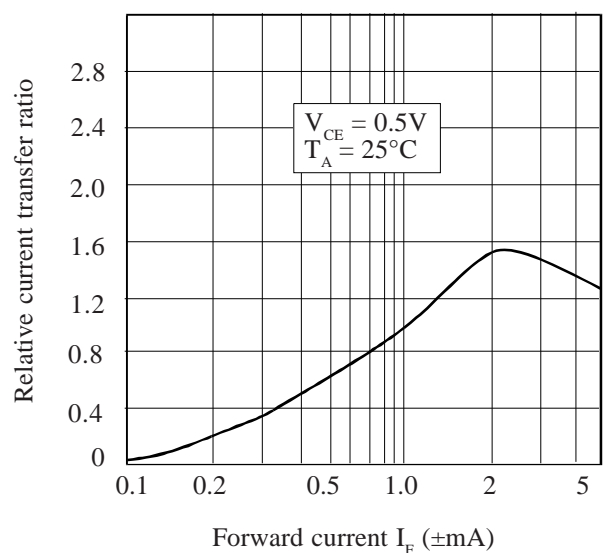
Relative Current Transfer Ratio vs. Forward Current



Relative Current Transfer Ratio vs. Ambient Temperature



Relative Current Transfer Ratio vs. Forward Current



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	$V_{CE} = 24\text{V}$
Coupled	Current Transfer Ratio (CTR) (Note 2)	100		1200	%	$\pm 1\text{mA} I_F, 0.5\text{V } V_{CE}$
	Low Input CTR	50			%	$\pm 0.5\text{mA} I_F, 1.5\text{V } V_{CE}$
	Collector-emitter Saturation Voltage $V_{CE(SAT)}$		0.2	0.4	V	$\pm 1\text{mA} I_F, 0.5\text{mA} I_C$
					V	$\pm 1\text{mA} I_F, 1\text{mA} I_C$
	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)	
Rise Time, tr		4		μs	$V_{CE} = 2\text{V}$,	
Fall Time, 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.