

4N25X, 4N26X, 4N27X, 4N28X  
4N25, 4N26, 4N27, 4N28



# ISOCOM

COMPONENTS

## OPTICALLY COUPLED ISOLATOR PHOTOTRANSISTOR OUTPUT



### APPROVALS

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

### 'X' SPECIFICATION APPROVALS

- VDE 0884 in 3 available lead form :-  
- STD  
- G form  
- SMD approved to CECC 00802
- Certified to EN60950 by :-  
Nemko - Certificate No. P01102464

### DESCRIPTION

The 4N25, 4N26, 4N27, 4N28 series of optically coupled isolators consist of infrared light emitting diode and NPN silicon photo transistor in a standard 6 pin dual in line plastic package.

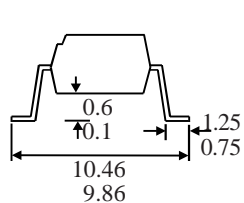
### FEATURES

- 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 Isolation Voltage ( $5.3kV_{RMS}$ ,  $7.5kV_{PK}$ )
- All electrical parameters 100% tested
- Custom electrical selections available

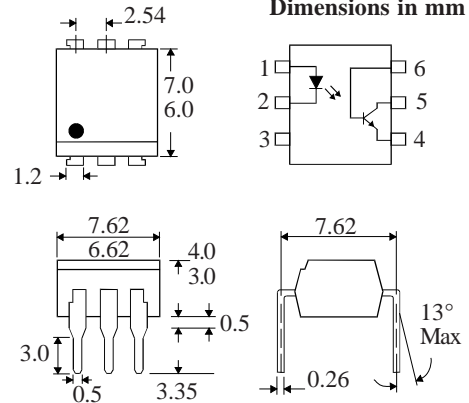
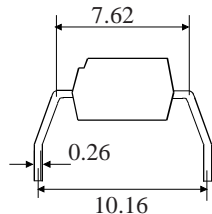
### APPLICATIONS

- DC motor controllers
- Industrial systems controllers
- Measuring instruments
- Signal transmission between systems of different potentials and impedances

**OPTION SM  
SURFACE MOUNT**



**OPTION G**



### 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 \_\_\_\_\_ 60mA  
Reverse Voltage \_\_\_\_\_ 6V  
Power Dissipation \_\_\_\_\_ 105mW

### OUTPUT TRANSISTOR

Collector-emitter Voltage  $BV_{CEO}$  \_\_\_\_\_ 30V  
Collector-base Voltage  $BV_{CBO}$  \_\_\_\_\_ 70V  
Emitter-collector Voltage  $BV_{ECO}$  \_\_\_\_\_ 6V  
Collector Current \_\_\_\_\_ 50mA  
Power Dissipation \_\_\_\_\_ 160mW

### POWER DISSIPATION

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

### ISOCOM COMPONENTS 2004 LTD

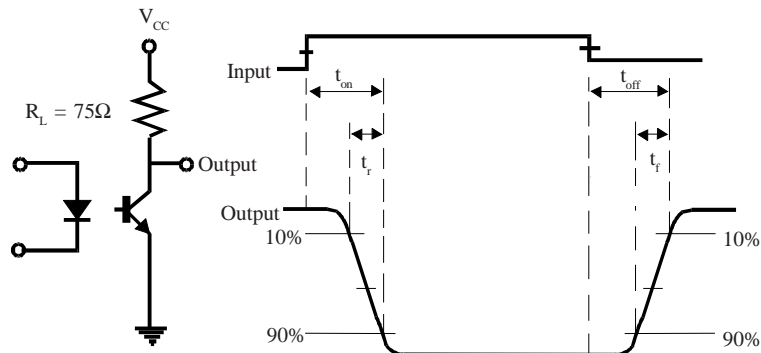
Unit 25B, Park View Road West,  
Park View Industrial Estate, Brenda Road  
Hartlepool, TS25 1UD England  
Tel: (01429)863609 Fax: (01429)863581 e-mail  
sales@isocom.co.uk <http://www.isocom.com>

**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	1.5	V	$I_F = 10\text{mA}$
	Reverse Current ( $I_R$ )			10	$\mu\text{A}$	$V_R = 6\text{V}$
Output	Collector-emitter Breakdown ( $BV_{CEO}$ ) (Note 2)	30			V	$I_C = 1\text{mA}$
	Collector-base Breakdown ( $BV_{CBO}$ )	70			V	$I_C = 100\mu\text{A}$
	Emitter-collector Breakdown ( $BV_{ECO}$ )	6			V	$I_E = 100\mu\text{A}$
	Collector-emitter Dark Current ( $I_{CEO}$ )			50	nA	$V_{CE} = 10\text{V}$
Coupled	Current Transfer Ratio (CTR) 4N25, 4N26	20			%	$10\text{mA } I_F, 10\text{V } V_{CE}$
	4N27, 4N28	10			%	$10\text{mA } I_F, 10\text{V } V_{CE}$
	Collector-emitter Saturation Voltage $V_{CE(SAT)}$			0.5	V	$50\text{mA } I_F, 2\text{mA } I_C$
	Input to Output Isolation Voltage $V_{ISO}$	5300			$V_{RMS}$	See note 1
		7500			$V_{PK}$	See note 1
	Input-output Isolation Resistance $R_{ISO}$	$5 \times 10^{10}$			$\Omega$	$V_{IO} = 500\text{V}$ (note 1)
Output Rise Time, $t_r$		2		$\mu\text{s}$	$V_{CC} = 5\text{V}, I_F = 10\text{mA}$	
Output Fall Time, $t_f$		2		$\mu\text{s}$	$R_L = 75\Omega, (\text{FIG 1})$	

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.

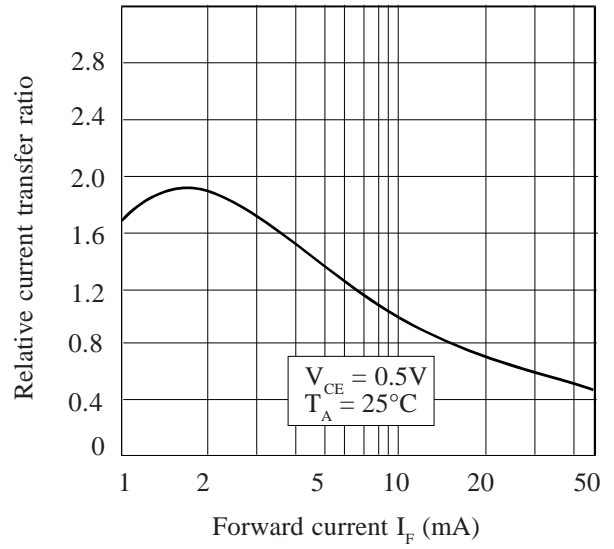


**FIG 1**

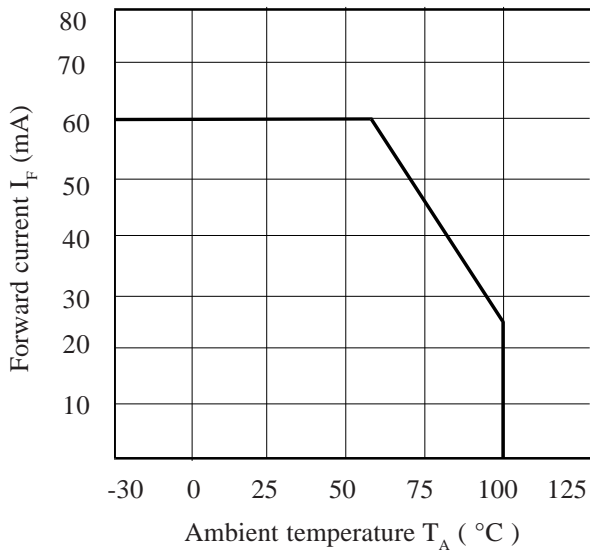
**Collector Power Dissipation vs. Ambient Temperature**



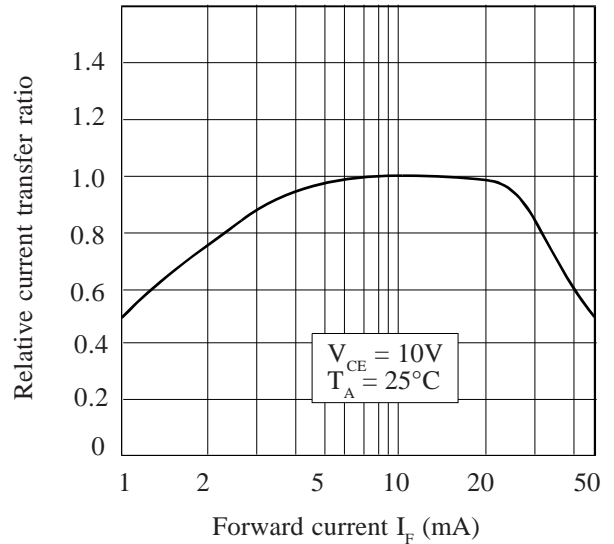
**Relative Current Transfer Ratio vs. Forward Current**



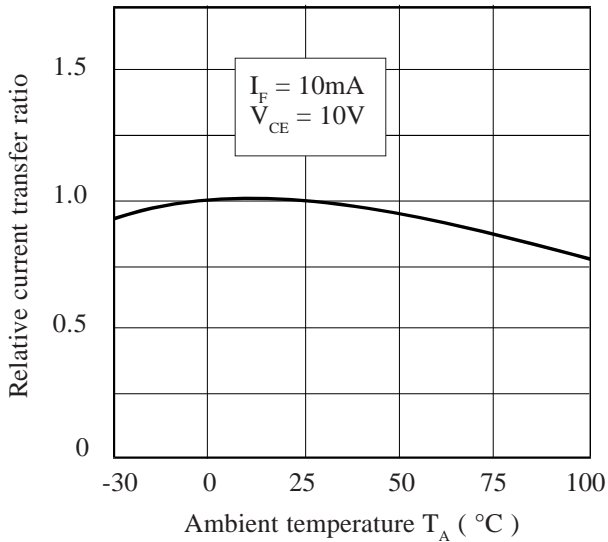
**Forward Current vs. Ambient Temperature**



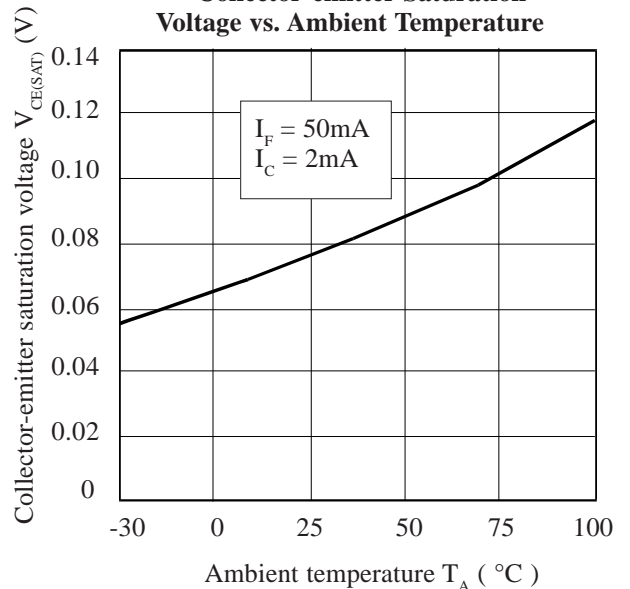
**Relative Current Transfer Ratio vs. Forward Current**



**Relative Current Transfer Ratio vs. Ambient Temperature**



**Collector-emitter Saturation Voltage vs. Ambient Temperature**



## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Transistor Output Optocouplers](#) category:*

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

Other Similar products are found below :

[LTV-814S-TA](#) [LTV-852S](#) [66095-001](#) [PS2561-1-A](#) [PS2561A-1-W-A](#) [PS2561L1-1-A](#) [PS2561L-1-V-A](#) [PS2706-1-A](#) [PS2815-1-A](#) [MRF658](#)  
[ELD207\(TA\)](#) [ILD2-X006](#) [ILQ615-3X016](#) [LDA102S](#) [SFH615A-4XSM TR](#) [PS2561DL-1Y-F3-A](#) [PS2561L1-1-L-A](#) [PS2562-1-V-A](#) [PS2565L-](#)  
[1-A](#) [PS2581L2-A](#) [PS2701A-1-F3-P-A](#) [PS2711-1-A](#) [PS2801-1-F3-P-A](#) [PS2833-4-A](#) [PS2841-4A-AX](#) [LTV-702FS](#) [LTV-702V](#) [LTV-702VB](#)  
[LTV-816S-TA](#) [LTV-825S](#) [TCET2100](#) [TLP290-4\(E\(T](#) [IL215AT](#) [WPPC-A11066AA](#) [WPPC-A11066AD](#) [WPPC-A11084ASS](#) [WPPC-](#)  
[A21068AA](#) [WPPC-D11066AA](#) [WPPC-D21068ED](#) [WPPC-D410616EA](#) [WPPC-D410616ED](#) [X4IAC24A](#) [4N26-X001](#) [EL1010\(TA\)-VG](#)  
[SFH600-2X007](#) [TCMT1118](#) [VO206AT](#) [WPPC-D21068EA](#) [WPPC-D11064AD](#) [WPPC-A410616AD](#)