



NON-BASE LEAD OPTICALLY COUPLED ISOLATOR PHOTOTRANSISTOR OUTPUT

APPROVALS

- UL recognised, File No. E91231

'X' SPECIFICATION APPROVALS

- VDE 0884 approval pending
- EN60950 approval pending

DESCRIPTION

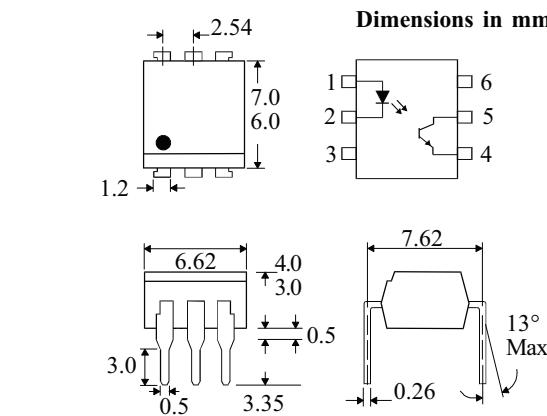
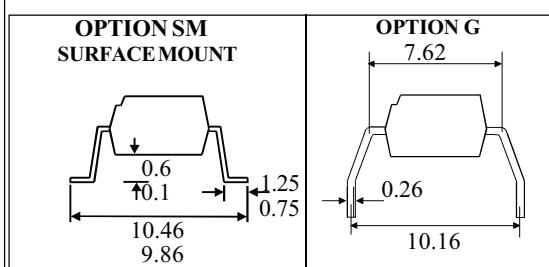
The CNX62A optically coupled isolator consists of an infrared light emitting diode and a NPN silicon photo transistor in a standard 6 pin dual in line plastic package with the base pin unconnected.

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 (40% min)
- Low Saturation Voltage suitable for TTL integrated circuits
- High BV_{CEO} (50V min)
- High Isolation Voltage (5.3kV_{RMS}, 7.5kV_{PK})
- Base pin unconnected for improved noise immunity in high EMI environment

APPLICATIONS

- DC motor controllers
- Industrial systems controllers
- 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	60mA
Reverse Voltage	6V
Power Dissipation	105mW

OUTPUT TRANSISTOR

Collector-emitter Voltage BV_{CEO}	50V
Emitter-collector Voltage BV_{ECO}	6V
Power Dissipation	160mW

POWER DISSIPATION

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

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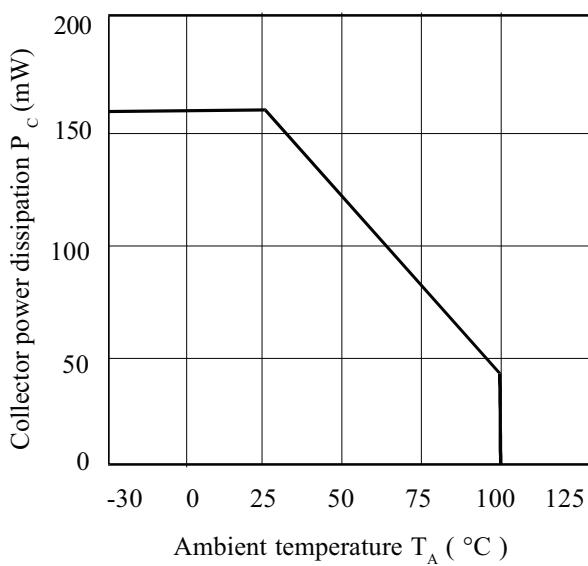
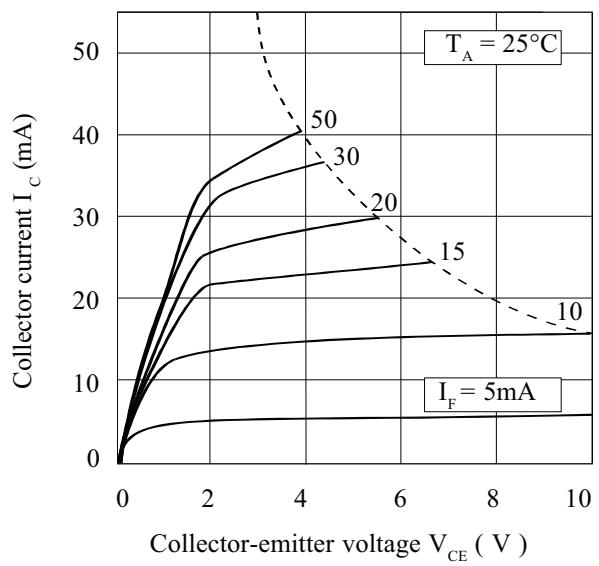
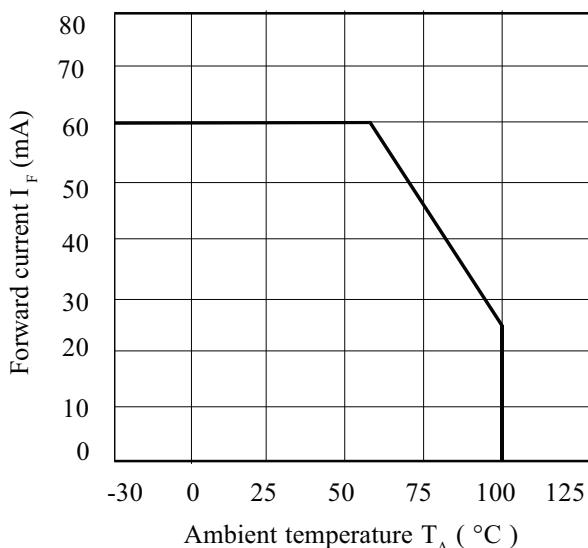
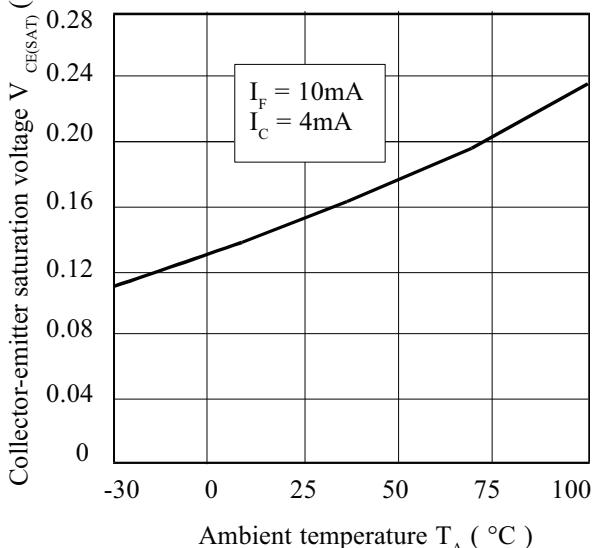
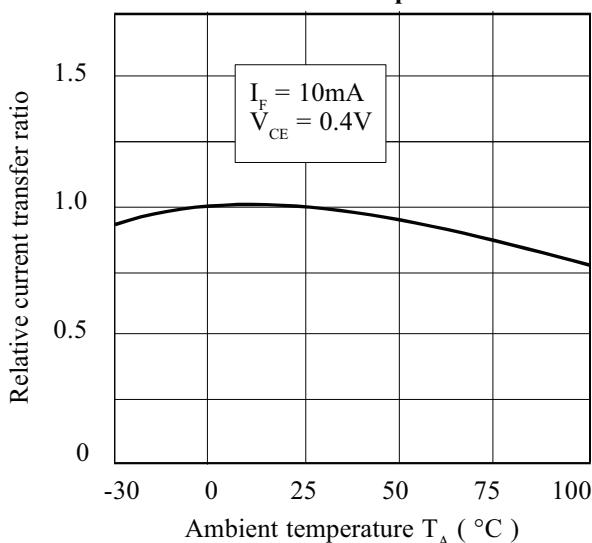
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ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ Unless otherwise noted)

PARAMETER		MIN	TYP	MAX	UNITS	TEST CONDITION
Input	Forward Voltage (V_F) Reverse Voltage (V_R) Reverse Current (I_R)	6	1.2	1.5	V V μA	$I_F = 10\text{mA}$ $I_R = 10\mu\text{A}$ $V_R = 6\text{V}$
Output	Collector-emitter Breakdown (BV_{CEO}) (Note 2) Emitter-collector Breakdown (BV_{ECO}) Collector-emitter Dark Current (I_{CEO})	50			V	$I_C = 1\text{mA}$
		6		50	V nA	$I_E = 100\mu\text{A}$ $V_{CE} = 10\text{V}$
Coupled	Current Transfer Ratio (I_C / I_F) (Note 2) Collector-emitter Saturation Voltage $V_{CE(SAT)}$ Input to Output Isolation Voltage V_{ISO} Input-output Isolation Resistance R_{ISO} Turn-on Time t_{on} Turn-off Time t_{off} Turn-on Time t_{on} Turn-off Time t_{off}	0.4	1.5			10mA I_F , 0.4V V_{CE} 10mA I_F , 5V V_{CE} 10mA I_F , 4mA I_C See note 1 See note 1 $V_{IO} = 500\text{V}$ (note 1) $V_{CC} = 5\text{V}$, $I_C = 2\text{mA}$, $R_L = 100\Omega$ $V_{CC} = 5\text{V}$, $I_C = 2\text{mA}$, $R_L = 1\text{k}\Omega$

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. Collector-emitter Voltage****Forward Current vs. Ambient Temperature****Collector-emitter Saturation Voltage vs. Ambient Temperature****Relative Current Transfer Ratio vs. Ambient Temperature****Relative Current Transfer Ratio vs. Forward Current**