

CNX82A.W, CNX83A.W, SL5582.W & SL5583.W

DESCRIPTION

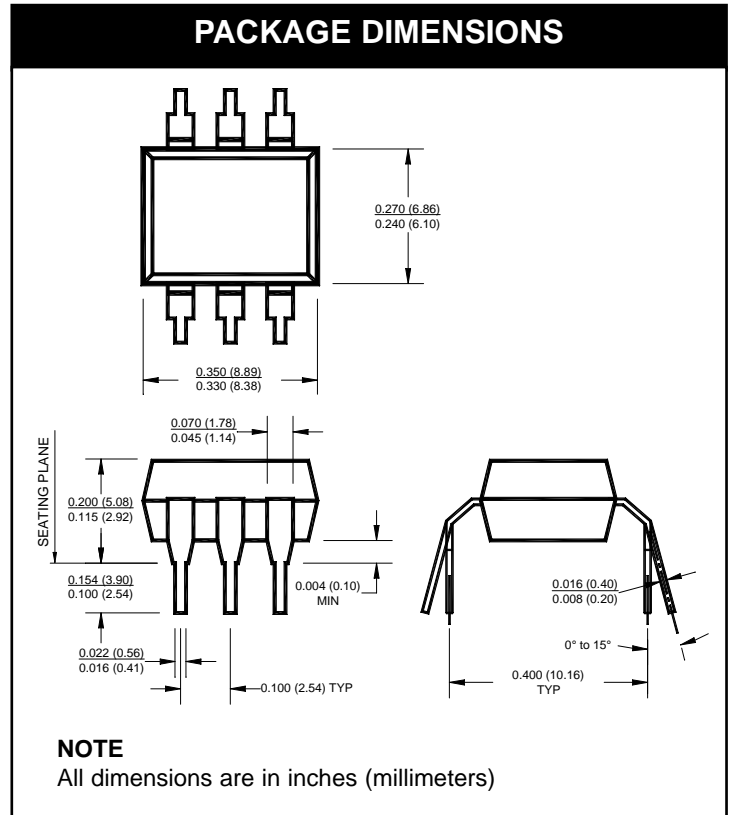
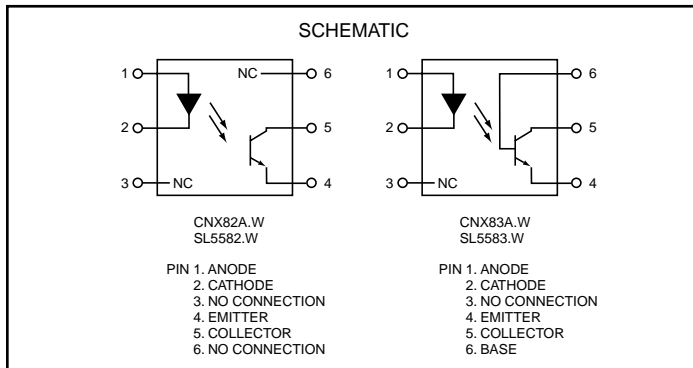
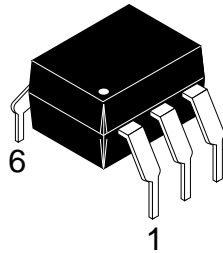
The CNX82A.W, CNX83A.W, SL5582.W AND SL5583.W, consist of a gallium arsenide infrared emitting diode driving a silicon phototransistor in a 6-pin dual in-line package.

FEATURES

- Input/Output pin distance 10.16 mm
- UL recognized (File # E90700)

APPLICATIONS

- Power supply regulators
- Digital logic inputs
- Microprocessor inputs



ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Units
TOTAL DEVICE			
Storage Temperature	T_{STG}	-55 to +150	°C
Operating Temperature	T_{OPR}	-55 to +100	°C
Lead Solder Temperature	T_{SOL}	260 for 10 sec	°C
Junction Temperature	T_J	125	°C
Total Device Power Dissipation @ $T_A = 25^\circ\text{C}$	P_D	250	mW
EMITTER			
DC/Average Forward Input Current	I_F	100	mA
Reverse Input Voltage	V_R	5.0	V
Forward Current - Peak (1 μs pulse, 300pps)	$I_F(pk)$	3.0	A
LED Power Dissipation @ $T_A = 25^\circ\text{C}$	P_D	140	mW
Derate above 25°C		1.33	mW/°C
DETECTOR			
Collector-Emitter Voltage	V_{CEO}	50	V
Collector-Base Voltage (CNX83A)	V_{CBO}	70	V
Emitter-Collector Voltage	V_{ECO}	7	V
Continuous Collector Current	I_C	100	mA
Detector Power Dissipation @ $T_A = 25^\circ\text{C}$	P_D	150	mW
Derate above 25°C		2.0	mW/°C

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

INDIVIDUAL COMPONENT CHARACTERISTICS

Parameter	Test Conditions	Symbol	Device	Min	Typ**	Max	Unit
EMITTER							
Input Forward Voltage	($I_F = 10\text{ mA}$)	V_F	ALL		1.2	1.50	V
Reverse Leakage Current	($V_R = 5.0\text{ V}$)	I_R	ALL		0.001	10	μA
DETECTOR							
Collector-Emitter Breakdown Voltage	($I_C = 1.0\text{ mA}$, $I_F = 0$)	BV_{CEO}	ALL	50	100		V
Collector-Base Breakdown Voltage	($I_C = 100\text{ }\mu\text{A}$, $I_F = 0$)	BV_{CBO}	CNX83A.W SL5583.W	70	120		V
Emitter-Collector Breakdown Voltage	($I_E = 100\text{ }\mu\text{A}$, $I_F = 0$)	BV_{ECO}	ALL	7	10		V
Collector-Emitter Dark Current	($V_{CE} = 10\text{ V}$, $I_F = 0$)	I_{CEO}	ALL		0.001	0.050	μA
	($V_{CE} = 10\text{ V}$, $I_F = 0$) ($T_A = 70^\circ\text{C}$)		CNX82A.W CNX83A.W		0.5	10	
	($V_{CE} = 10\text{ V}$, $I_F = 0$) ($T_A = 100^\circ\text{C}$)		SL5582.W SL5583.W			0.5	
	($V_{CE} = 10\text{ V}$, $I_F = 0$) ($T_A = 100^\circ\text{C}$)		SL5582.W SL5583.W			50	
Collector-Base Dark Current	($V_{CB} = 10\text{ V}$)	I_{CBO}	CNX83A.W SL5583.W			20	nA
Capacitance	($V_{CE} = 0\text{ V}$, $f = 1\text{ MHz}$)	C_{CE}	ALL		8		pF

Note

 ** Typical values at $T_A = 25^\circ\text{C}$

Call QT Optoelectronics for more information or the phone number of your nearest distributor.

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