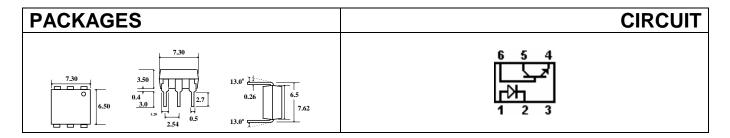
CNW11AV1 TRANSISTOR OPTOCOUPLERS





DESCRIPTION

The CNW11AV1X/2X/3X is an optically coupled isolator. It consists of a Gallium Arsenide infrared emitting diode and a NPN silicon phototransistor mounted in a standard 6-pin plastic dual-in-line package.

Isocom Ltd supplies a multitude of plastic optocouplers for all applications varying from standard transistor optos through to Darlington and Schmitt Trigger devices. It's massive family of optos vary in speed allowing maximum opportunity to engineers worldwide.

All devices are performance guaranteed between - 20°C and +80°C and have completed rigorous testing. The Company's customers can be assured of our commitment to stringent quality, reliability and inspection standards, as demonstrated by our existing approvals. Other customer specific options can also be offered.

FEATURES

4000V Isolation 8mm (min) Creeping Distance between Emitter & Detector Leads Designed for VDE and British Standards Applications

Isocom Ltd reserves the right to change the details on this specification without notice. Please consult Isocom Ltd prior to use. Isocom Ltd cannot accept liability for any errors or omissions.

For sales enquiries, or further information, please contact our sales office at:

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ABSOLUTE MAXIMUM RATINGS

Storage Temperature	-55°C to +150°C
Operating Temperature	-55°C to +100°C
Lead Soldering Temperature	260°C 1.6mm from case for 10S
Input-to-Output Isolation Voltage	û4000VDC

Input Diode

Forward DC Current	60mA	
Reverse DC Voltage	6V	
Peak forward Current	3A	1μS p.w. 300 pps
Power Dissipation	100mW	Derate linearly above 25°C at 1.33mW/°C.

Output Transistor

Collector-Emitter Voltage	70V	BV_{CEO}
Emitter-collector voltage	7V	BV _{ECO}
Collector-base Voltage	70V	BV_{CBO}
Power Dissipation	300mW	Derate linearly above 25°C at 2.0mW/°C

ELECTRICAL CHARACTERISTICS

 $T_A = 25$ °C U.O.S. (each channel where appropriate).

Input Diode Electrical Characteristics

Parameter	Symbol	Test Conditions	Device	Min	Typ	Max	Units
Forward Voltage	V_{F}	$I_F = 10mA$		0.8		1.5	V
		$I_F = 10 \text{mA}, T_A = -55^{\circ} \text{C}$		0.9		1.7	V
		$I_F = 10 \text{mA}, T_A = +100^{\circ} \text{C}$				1.4	V
Reverse Current	I_R	$V_R = 6.0V$				10	μΑ
Output Detector Electrical	Characteris	stics					
Collector-Emitter	BV _{CEO}	$I_C = 1 \text{mA}$		70			V
Breakdown Voltage							
Emitter-base Voltage	BV_{EBO}	$I_E = 100 \mu A$		7			V
Collector-base Voltage	BV_{CBO}	$I_C = 100 \mu A$		70			V
Collector-emitter Dark	I_{CEO}	$V_{CE} = 10V, I_F = 0$				50	nA
Current							
Collector-emitter	C _{CE}	V_{CE} = 10V, f= 1Mhz			2.0		pF
Capacitance							
Coupled Electrical Characte	eristics						
DC Current Transfer Ratio	$I_{\rm C}/I_{\rm F}$	$I_F = 10 \text{mA}, V_{CE} = 10 \text{V}$	AV1X	100		300	%
			AV2X AV3X	50 20			
			711 321				
Input-to-Output Isolation	R _{ISO}	$V_{IO} = 500V$		10 ¹¹			Ω
Resistance							
Collector-Emitter Saturation	$V_{CE(Sat)}$	$I_F = 20 \text{mA}, I_C = 2 \text{mA}$				0.4	V
Voltage							
Capacitance Input to Output	C_{IO}	f= 1Mhz				0.5	pF
Turn-on Time	T_{ON}	$V_{CC} = 10V, I_{C} = 2mA, R_{L} = 100\Omega$				15	μS
Turn-off Time	T _{OFF}					15	μS
Input-to-Output Isolation				4000			V
Voltage							

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