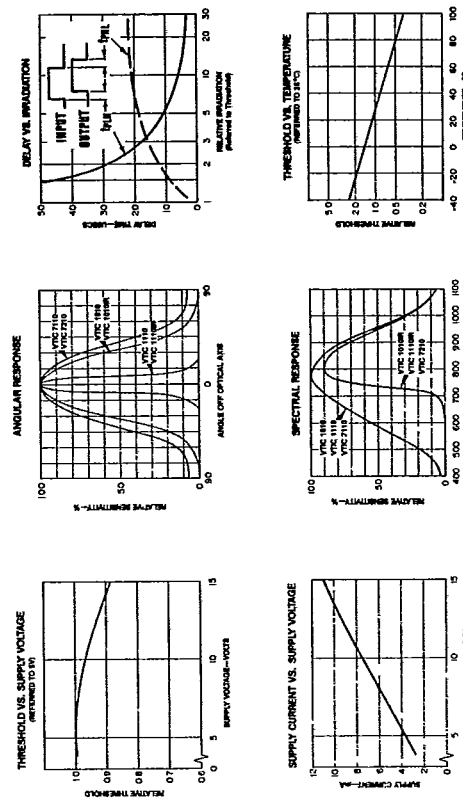


ELECTRO-OPTICAL CHARACTERISTICS (at 25°C)

CHARACTERISTIC	SYMBOL	Min.	Typ.	Max.	UNITS	NOTES
Supply Voltage Range	V_{cc}	4.0	5.0	15	Volts	
Supply Current	I_{cc}		3.2		mA	$V_{cc} = 5V$
Irradiation Threshold						
VTIC 1010	E_{th}		65	150	$\mu W/cm^2$	
VTIC 1010IR			75	150		
VTIC 1110			4	20		
VTIC 1110IR			5	20		
VTIC 7110			30	70		
VTIC 7210			35	70		
						$E_r = \text{Incandescent Lamp @ 2850K}$
Hysteresis	AE		18		%	
Low-Level Output Voltage	V_{OL}		300	500	mV	
$I_{SINK} = 15 \text{ mA}$	V_{OL}		500		mV	
$I_{SINK} = 25 \text{ mA}$	t_r, t_f		200		nsecs	10%-90%
Output Rise/Fall Time	t_{PH}		6.0		usecs	
Propagation Delay	t_{PL}		2.0		usecs	
Output Low to High						
Output High to Low						

TYPICAL OPERATING CHARACTERISTICS



EG&G VACTEC

LAS-1A

LIGHT ACTIVATED SWITCHES

VTIC 1010
VTIC 1010IR
VTIC 1110
VTIC 1110IR
VTIC 7110
VTIC 7210



10900 PAGE BLVD. ST. LOUIS, MO. 63132 USA PHONE 314-423-4900 TWX 910-764-0811

PRODUCT DESCRIPTION

This series of Light Activated Switches are monolithic integrated circuits which incorporate a photodiode, low level amplifier and Schmitt trigger. Devices are temperature compensated for use with GaAs LED's. VTIC 1010IR, VTIC 1110IR, and VTIC 7210 have a visible blocking/IR transmitting case. This feature reduces sensitivity to visible sources, such as fluorescent lamps.

If sensitivity to visible light is required, order VTIC 1010, VTIC 1110, or VTIC 7110.

• High sensitivity
• Clear or visible blocking case
• Internal 5 kilohm pullup resistor
• On-chip
• Photodiode
• Amplifier
• Schmitt trigger
• Voltage regulator
• Output buffer
• Operation to 25 KHz
• Hermetic or molded epoxy package

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYM.	VTIC 1010 VTIC 1110	VTIC 1010IR VTIC 1110IR	VTIC 7110 VTIC 7210	UNITS
SUPPLY VOLTAGE	V_{cc}	+15	+15	+15	Volts
OUTPUT SINK CURRENT	I_{SINK}	50	50	50	mA
CONTINUOUS POWER DISSIPATION (Derate above 25°C)	P_D	200	200	200	mW
TEMPERATURE RANGE	T_o	-25 to +85	-25 to +85	-25 to +85	°C
OPERATING STORAGE	T_s	-40 to +125	-40 to +100	-40 to +100	°C
LEAD SOLDERING TEMP. (1.6 mm from case, 5 sec max.)		260	260	230	°C

