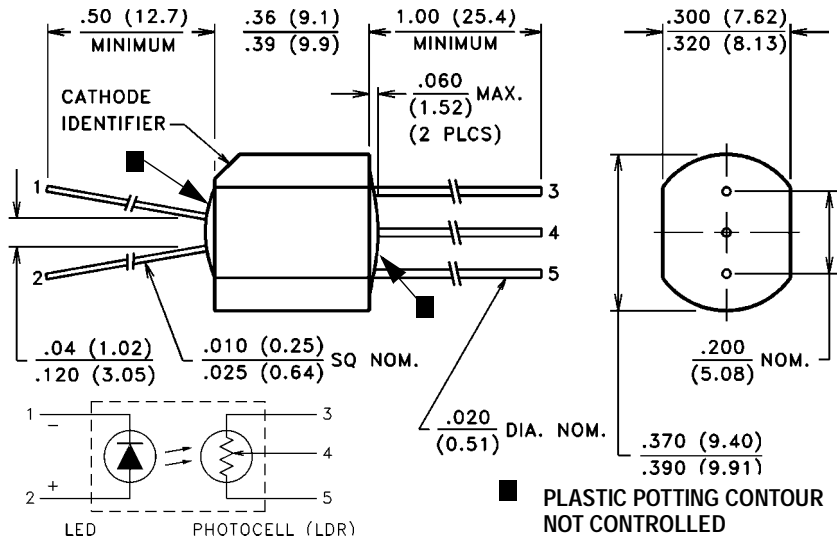


## PACKAGE DIMENSIONS INCH (MM)



## DESCRIPTION

VTL5C2/2 features a very steep slope, low temperature coefficient of resistance, and a small light history memory.

VTL5C3/2 has a steep slope, good dynamic range, a very low temperature coefficient of resistance, and a small light history memory.

## ABSOLUTE MAXIMUM RATINGS @ 25°C

Maximum Temperatures		LED Forward Voltage Drop @ 20 mA:	2.0V (1.65V Typ.)
Storage and Operating:	-40°C to 75°C	Min. Isolation Voltage @ 70% Rel. Humidity:	2500 VRMS
Cell Power:	175 mW	Output Cell Capacitance:	5.0 pF
Derate above 30°C:	3.9 mW/°C	Cell Voltage:	50V (VTL5C2/2), 100V (VTL5C2/3)
LED Current:	40 mA <b>1</b>	Input - Output Coupling Capacitance:	0.5 pF
Derate above 30°C:	0.9 mA/°C		
LED Reverse Breakdown Voltage:	3.0 V		

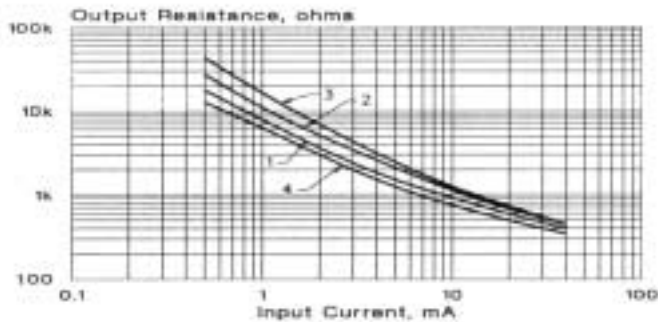
## ELECTRO-OPTICAL CHARACTERISTICS @ 25°C

Part Number	Material Type	ON Resistance <b>2</b>		OFF <b>3</b> Resistance @ 10 sec. (Min.)	Slope (Typ.) @ 0.5 mA / R @ 5 mA	Dynamic Range (Typ.) $\frac{R_{DARK}}{R @ 20 mA}$	Response Time <b>4</b>	
		Input current	Dark Adapted (Typ.)				Turn-on to 63% Final $R_{ON}$ (Typ.)	Turn-off (Decay) to 100 k $\Omega$ (Max.)
VTL5C2/2	Ø	5 mA 40 mA	2.5 k $\Omega$ 700 $\Omega$	1.0 M $\Omega$	20	65 db	7.0 ms	150 ms
VTL5C3/2	3	1 mA 40 mA	55 k $\Omega$ 2 k $\Omega$	10 M $\Omega$	19	71 db	3.0 ms	50 ms

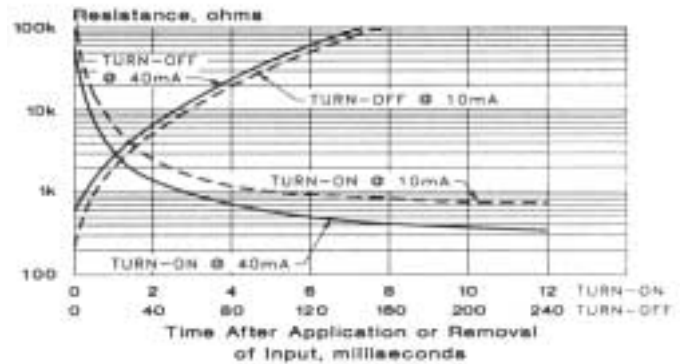
Refer to Specification Notes, page 41.

# Typical Performance Curves

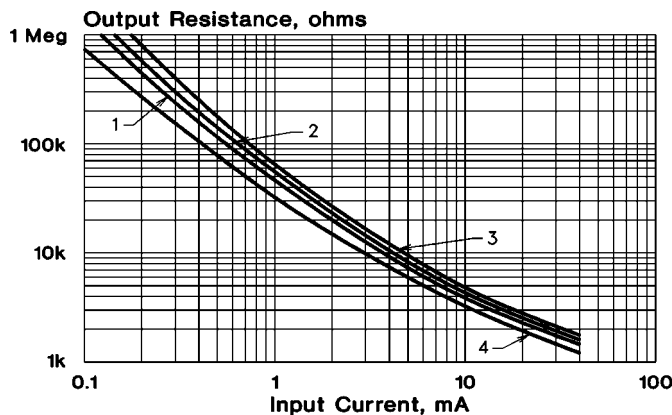
Output Resistance vs. Input Current  
VTL5C2/2



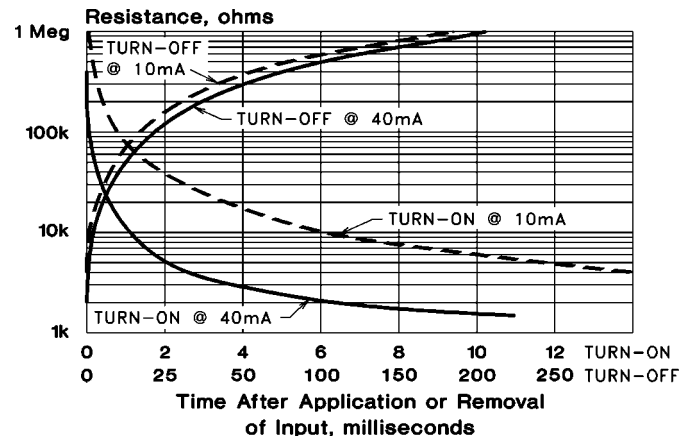
Response Time  
VTL5C2/2



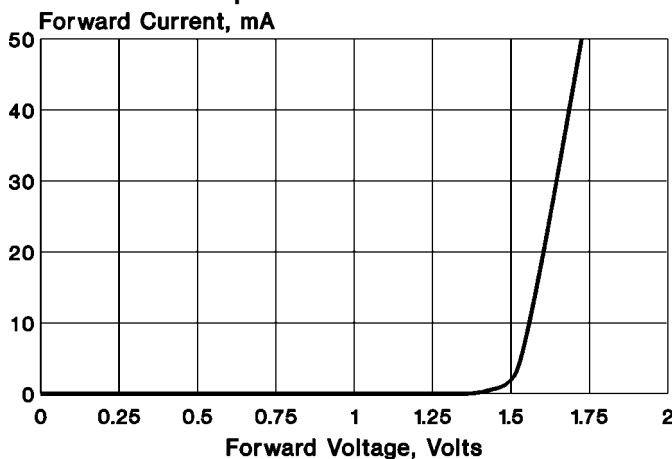
Output Resistance vs. Input Current  
VTL5C3/2



Response Time  
VTL5C3/2



## Input Characteristics



## Notes:

- At 1.0 mA and below, units may have substantially higher resistance than shown in the typical curves. Consult factory if closely controlled characteristics are required at low input currents.
- Output resistance vs input current transfer curves are given for the following light adapt conditions:
  - 25°C — 24 hours @ no input
  - 25°C — 24 hours @ 40 mA input
  - +50°C — 24 hours @ 40 mA input
  - 20°C — 24 hours @ 40 mA input
- Response time characteristics are based upon test following adapt condition (2) above.