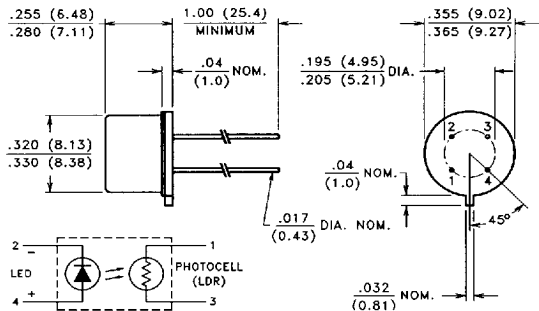


**PACKAGE DIMENSIONS** inch (mm)



TO-5 PACKAGE OUTLINE

**DESCRIPTION**

VTL2C3 features a small temperature coefficient of resistance, little light history memory, and a steeper slope than the VTL2C2.

VTL2C4 has the lowest "on" resistance of any device in the VTL2Cx series, fast speed and a smaller temperature coefficient of resistance than the VTL2C1.

**ABSOLUTE MAXIMUM RATINGS @ 25°C**

Maximum Temperatures

Storage and Operating: -40°C to 75°C

Cell Power: 100 mW

Derate above 30°C: 2.22 mW/°C

LED Current: 40 mA **1**

Derate above 30°C: 0.9 mA/°C

LED Reverse Breakdown Voltage: 3.0 V

LED Forward Voltage Drop @ 20 mA: 2.0 V (1.65 V typical)

Min. Isolation Voltage @ 70% Relative Humidity: 500 V pk

Output Cell Capacitance: 5.0 pF

Cell Voltage: 300 V (VTL2C3), 70 V (VTL2C4)

Input - Output Coupling Capacitance: 2.0 pF

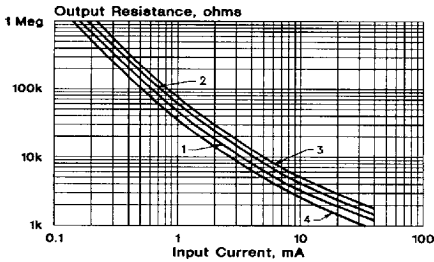
**ELECTRO-OPTICAL CHARACTERISTICS @ 25°C**

Part Number	Material Type	Output Resistance						Response Time <b>4</b>	
		ON Resistance <b>2</b>			OFF <b>3</b> Resistance @ 10 sec. (Min.)	Slope (Typ.) R @ .5 mA R @ 5 mA	Dynamic Range (Typ.) $\frac{P_{ONR}}{R @ 20 mA}$	Turn-on to 63% Final Row (Typ.)	Turn-off (Decay) to 100 kΩ (Max.)
		Input Current	Dark Adapted (Typ.)	Light Adapted (Max.)					
VTL2C3	3	1 mA 40 mA	50 kΩ 1 kΩ	— 2 kΩ	10 MΩ	21	72 db	2.5 ms	35 ms
VTL2C4	4	1 mA 40 mA	1.5 kΩ 50 Ω	— 100 Ω	400 kΩ	14.7	72 db	6.0 ms	1.5 sec

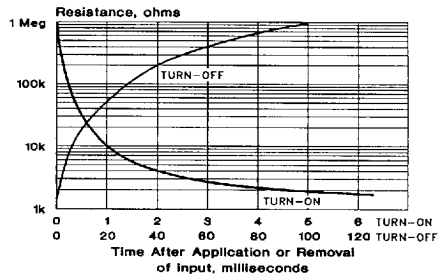
3030609 0001342 274

## Typical Performance Curves

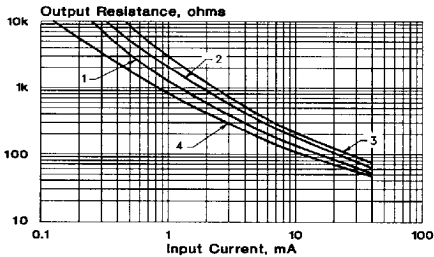
### Output Resistance vs Input Current VTL2C3



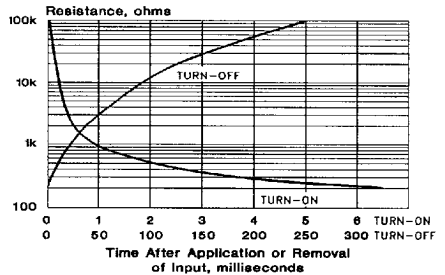
### Response Time VTL2C3



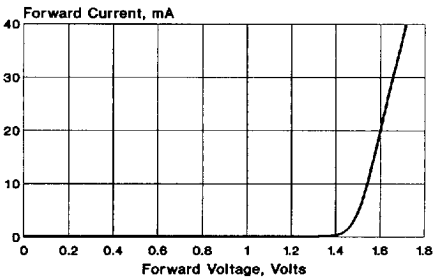
### Output Resistance vs Input Current VTL2C4



### Response Time VTL2C4



### Input Characteristics



#### Notes:

1. 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.
2. Output resistance or input current transfer curves are given for the following light adapt conditions:
  - (1) 25°C — 24 hours @ no input
  - (2) 25°C — 24 hours @ 40 mA input
  - (3) +50°C — 24 hours @ 40 mA input
  - (4) -20°C — 24 hours @ 40 mA input
3. Response time characteristics are based upon test following adapt condition (2) above.