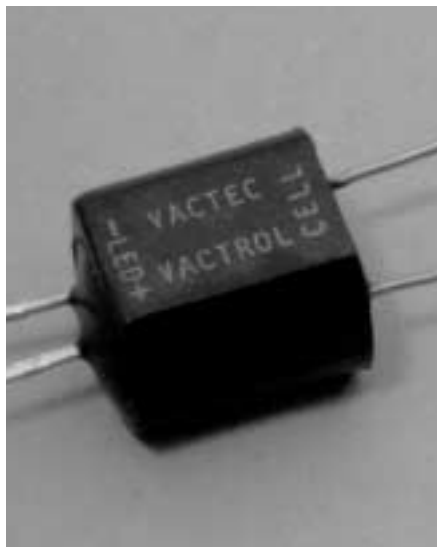
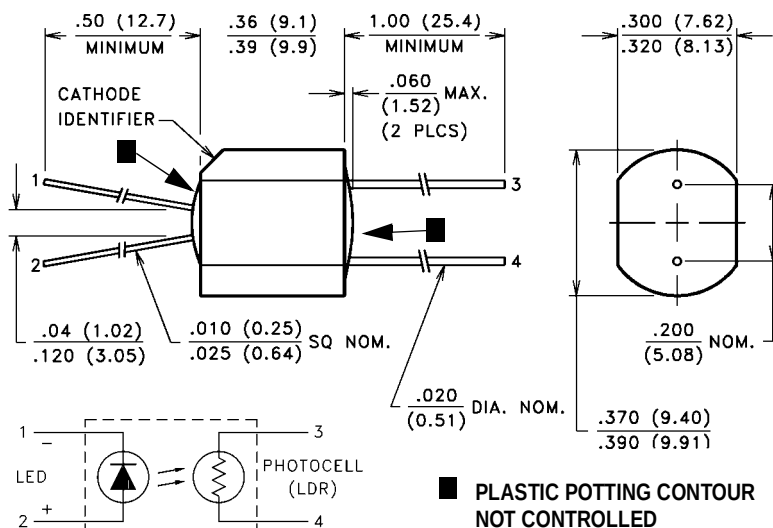




PACKAGE DIMENSIONS inch (mm)



DESCRIPTION

VTL5C1 offers 100db dynamic range, fast response time, and very high dark resistance.

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

ABSOLUTE MAXIMUM RATINGS @ 25°C

Maximum Temperatures

Storage and Operating: -40°C to 75°C

Cell Power: 175 mW

Derate above 30°C: 3.9 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: 2.0V (1.65V Typ.)

Min. Isolation Voltage @ 70% Rel. Humidity: 2500 VRMS

Output Cell Capacitance: 5.0 pF

Cell Voltage: 100V (VTL5C1), 200V (VTL5C2)

Input - Output Coupling Capacitance: 0.5 pF

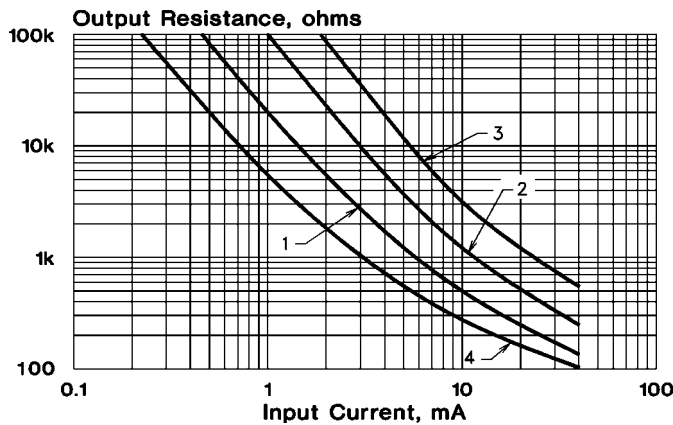
ELECTRO-OPTICAL CHARACTERISTICS @ 25°C

Part Number	Material Type	ON Resistance 2		OFF 3 Resistance @ 10 sec. (Min.)	Slope (Typ.) @ 0.5 mA R @ 5 mA	Dynamic Range (Typ.) $\frac{R_{DARK}}{R @ 20 mA}$	Response Time 4	
		Input current	Dark Adapted (Typ.)				Turn-on to 63% Final R_{ON} (Typ.)	Turn-off (Decay) to 100 k Ω (Max.)
VTL5C1	1	1 mA 10 mA 40 mA	20 k Ω 600 Ω 200 Ω	50 M Ω	15	100 db	2.5 ms	35 ms
VTL5C2	0	1 mA 10 mA 40 mA	5.5 k Ω 800 Ω 200 Ω	1 M Ω	24	69 db	3.5 ms	500 ms

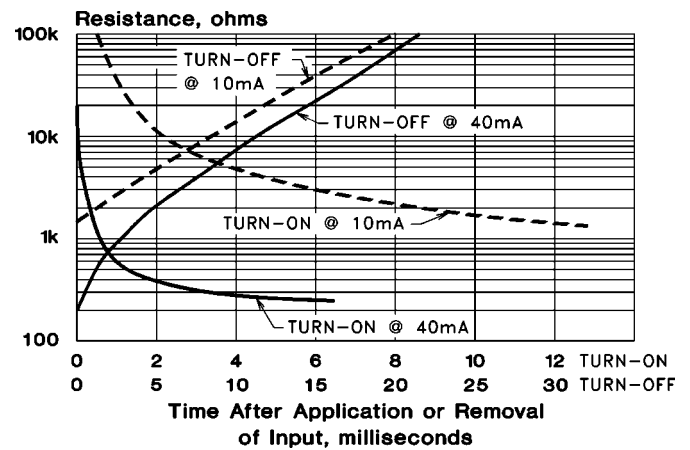
Refer to Specification Notes, page 41.

Typical Performance Curves

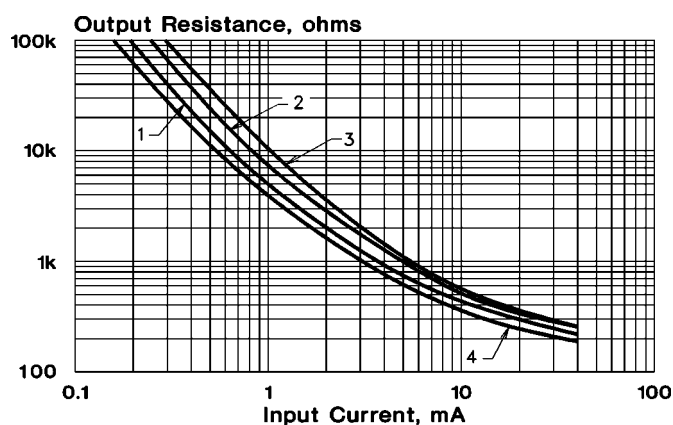
Output Resistance vs. Input Current
VTL5C1



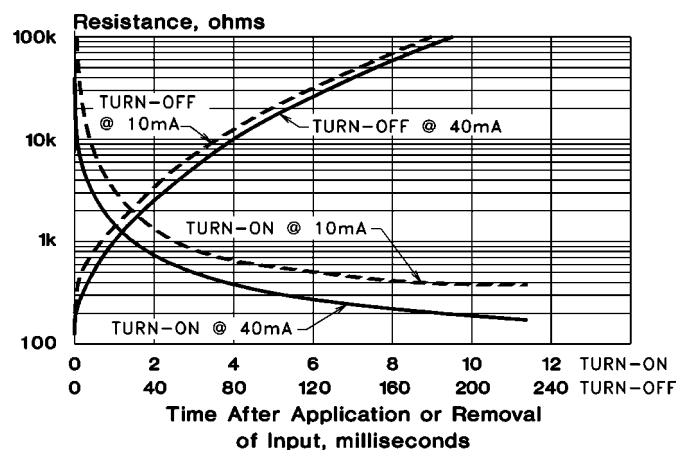
Response Time
VTL5C1



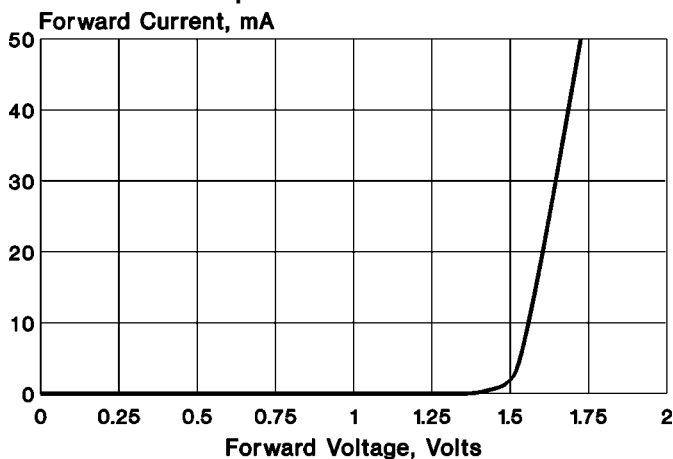
Output Resistance vs. Input Current
VTL5C2



Response Time
VTL5C2



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.