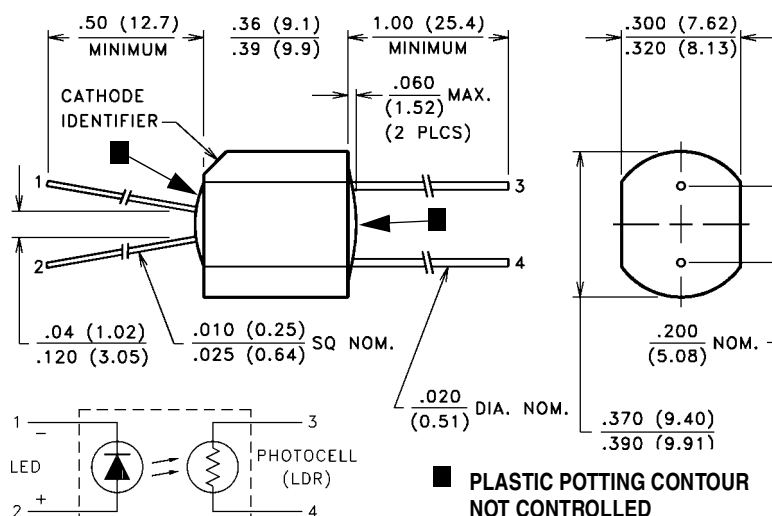


PACKAGE DIMENSIONS INCH (MM)



DESCRIPTION

VTL5C3 has a steep slope, good dynamic range, a very low temperature coefficient of resistance, and a small light history memory. VTL5C4 features a very low “on” resistance, fast response time, with a smaller temperature coefficient of resistance than VTL5C1.

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:	250V (VTL5C3), 50V (VTL5C4)
LED Current:	40 mA 1	Input - Output Coupling Capacitance:	0.5 pF
Derate above 30°C:	0.9 mA/°C		
LED Reverse Breakdown Voltage:	3.0 V		

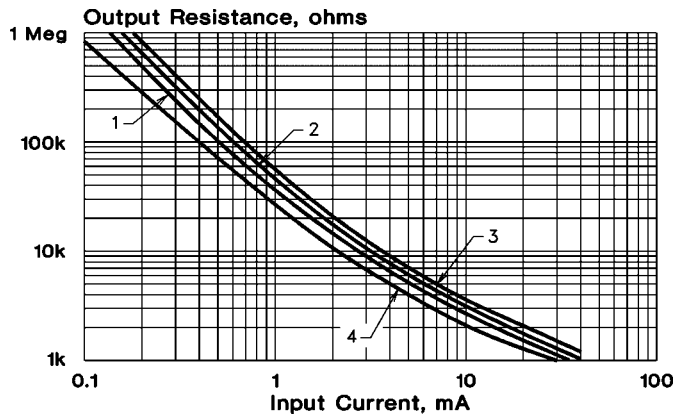
ELECTRO-OPTICAL CHARACTERISTICS @ 25°C

Part Number	Material Type	ON Resistance 2		OFF 3 Resistance @ 10 sec. (Min.)	Slope (Typ.) $\frac{R @ 0.5 \text{ mA}}{R @ 5 \text{ mA}}$	Dynamic Range (Typ.) $\frac{R_{\text{DARK}}}{R @ 20 \text{ mA}}$	Response Time 4	
		Input current	Dark Adapted (Typ.)				Turn-on to 63% Final R_{ON} (Typ.)	Turn-off (Decay) to 100 k Ω (Max.)
VTL5C3	3	1 mA 10 mA 40 mA	30 k Ω 5 Ω 1.5 Ω	10 M Ω	20	75 db	2.5 ms	35 ms
VTL5C4	4	1 mA 10 mA 40 mA	1.2 k Ω 125 Ω 75 Ω	400 M Ω	18.7	72 db	6.0 ms	1.5 sec

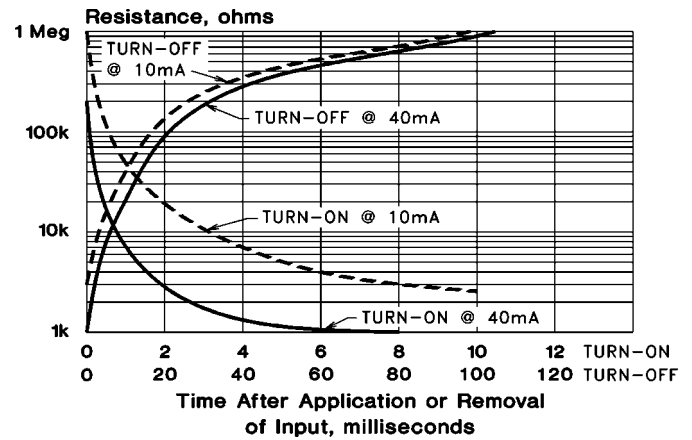
Refer to Specification Notes, page 41.

Typical Performance Curves

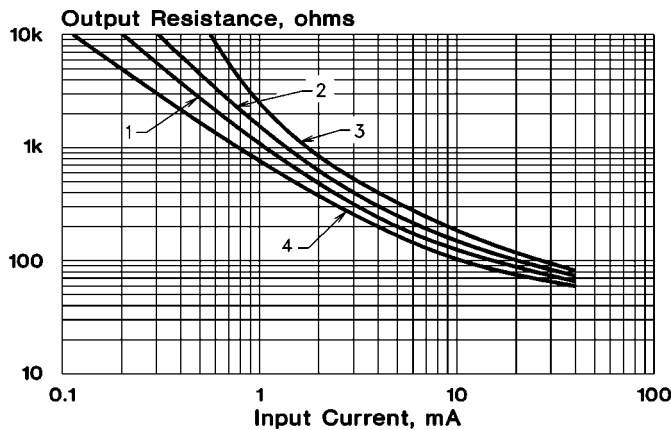
Output Resistance vs. Input Current
VTL5C3



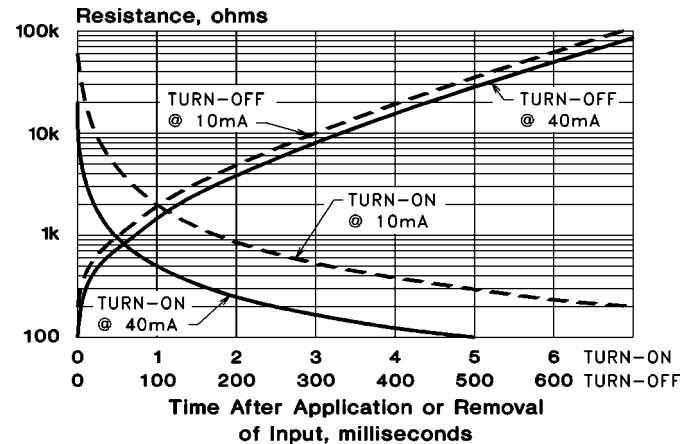
Response Time
VTL5C3



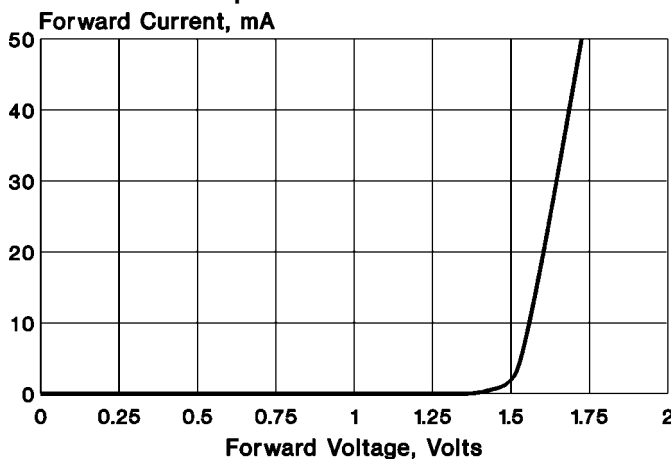
Output Resistance vs. Input Current
VTL5C4



Response Time
VTL5C4



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.