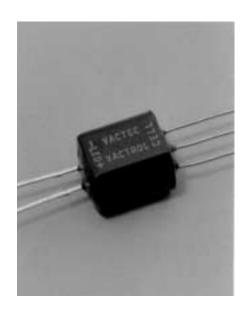
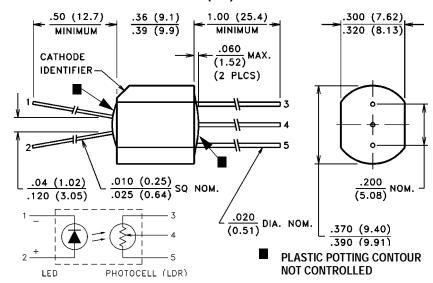
Dual Element Axial Vactrols

VTL5C2/2, 5C3/2



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.

-40°C to 75°C

175 mW

3.9 mW/°C

ABSOLUTE MAXIMUM RATINGS @ 25°C

Maximum Temperatures

Storage and Operating:

Cell Power:

Derate above 30°C:

LED Current: 40 mA 1 Derate above 30°C: 0.9 mA/°C

Defate above 50 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: 50V (VTL5C2/2),

100V (VTL5C2/3)

Input - Output Coupling Capacitance: 0.5 pF

ELECTRO-OPTICAL CHARCTERISTICS @ 25°C

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

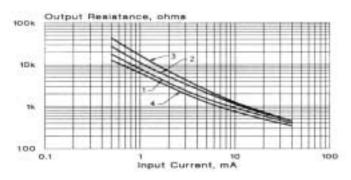
Refer to Specification Notes, page 41.

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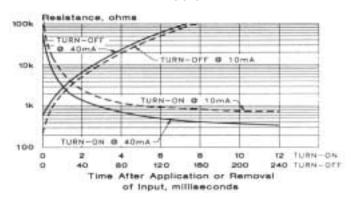
Phone: 314-423-4900 Fax: 314-423-3956 Web: www.perkinelmer.com/opto

Typical Performance Curves

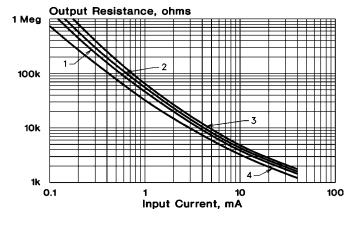
Output Resistance vs. Input Current VTL5C2/2



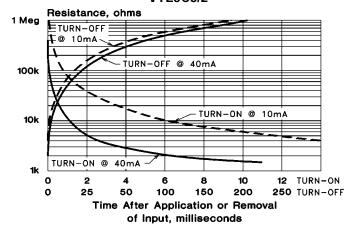
Response Time VTL5C2/2



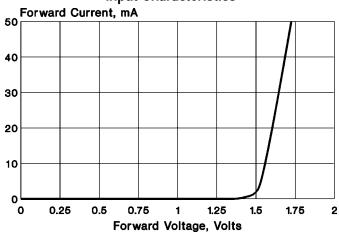
Output Resistance vs. Input Current VTL5C3/2



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:
 - (1) $25^{\circ}\text{C} 24 \text{ hours } @ \text{ no input}$
 - (2) 25°C 24 hours @ 40 mA input
 - (3) +50°C 24 hours @ 40 mA input
 - (4) $-20^{\circ}\text{C} 24 \text{ hours} @ 40 \text{ mA input}$
- 3. Response time characteristics are based upon test following adapt condition (2) above.

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