

Laser Line Filter | VPFHT

RoHS

Catalog Code

W3209

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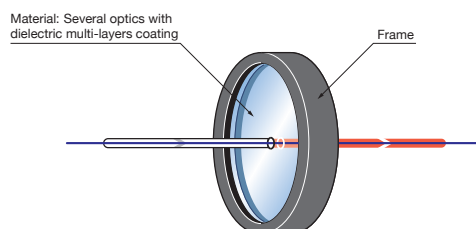
Etalon

This filter can extract light in a specific wavelength range. Very high transmittance can be obtained in the transmission range. Outside the specified transmission wavelength range the transmission decrease is steep and light is not transmitted almost close to the transmission range.

- Since the coating is a dielectric multilayer the absorption is small and transmittance is high. It enables the separation of the wavelength specified light efficiently.
- The filters are metallically framed which make it easy to be mounted into a holder.
- Large choice of spectrum, range from UV 325nm to IR 1064nm are available.

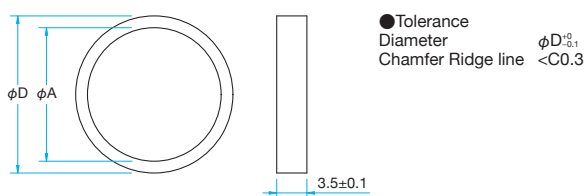


Schematic



Outline Drawing

(in mm)



325nm – 561nm

Part Number	Center wavelength [nm]	Diameter φD [mm]	Half bandwidth [nm]	Short wavelength Blocking range OD5 Range (OD6 Range) [nm]	Long wavelength Blocking range OD5 Range (OD6 Range) [nm]
VPFHT-12.5C-3250	325	φ12.5	1.75±0.55	291.0 – 321.8	328.3 – 380.7
VPFHT-25C-3250	325	φ25		(299.0 – 320.1)	(329.9 – 357.5)
VPFHT-12.5C-3550	355	φ12.5	1.9±0.6	314.8 – 351.8	358.6 – 422.5
VPFHT-25C-3550	355	φ25		(326.6 – 349.7)	(360.3 – 390.5)
VPFHT-12.5C-3638	364	φ12.5	1.95±0.55	321.7 – 360.2	367.4 – 435.0
VPFHT-25C-3638	364	φ25		(334.7 – 358.3)	(369.3 – 400.2)
VPFHT-12.5C-3720	372	φ12.5	2.0±0.6	328.1 – 368.3	375.7 – 446.8
VPFHT-25C-3720	372	φ25		(342.0 – 366.4)	(377.6 – 409.2)
VPFHT-12.5C-4416	442	φ12.5	2.4±0.7	381.0 – 437.2	446.0 – 551.1
VPFHT-25C-4416	442	φ25		(406.3 – 435.0)	(448.2 – 485.8)
VPFHT-12.5C-4579	458	φ12.5	2.45±0.75	393.1 – 453.3	462.5 – 576.7
VPFHT-25C-4579	458	φ25		(421.3 – 451.0)	(464.8 – 503.7)
VPFHT-12.5C-4880	488	φ12.5	2.65±0.75	415.1 – 483.1	492.9 – 625.3
VPFHT-25C-4880	488	φ25		(449.0 – 480.7)	(495.3 – 536.8)
VPFHT-12.5C-4910	491	φ12.5	2.65±0.75	417.2 – 486.1	495.9 – 630.3
VPFHT-25C-4910	491	φ25		(451.7 – 483.6)	(498.4 – 540.1)
VPFHT-12.5C-5145	515	φ12.5	2.8±0.8	434.1 – 509.4	519.6 – 669.5
VPFHT-25C-5145	515	φ25		(473.3 – 506.8)	(522.2 – 566.0)
VPFHT-12.5C-5320	532	φ12.5	2.87±0.85	447.0 – 527.0	537.0 – 699.0
VPFHT-25C-5320	532	φ25		(489.0 – 524.0)	(540.0 – 585.0)
VPFHT-12.5C-5435	544	φ12.5	2.95±0.85	454.6 – 538.1	548.9 – 719.5
VPFHT-25C-5435	544	φ25		(500.0 – 535.3)	(551.7 – 597.9)
VPFHT-12.5C-5614	561	φ12.5	3.0±0.9	467.0 – 555.8	567.0 – 751.2
VPFHT-25C-5614	561	φ25		(516.5 – 553.0)	(569.8 – 617.5)

Specifications

Coating	Dielectric multi-layer coating
Incident angle	0°
Maximum transmittance rate	T≥90% T≥80% (VPFHT-3250, -3550) T≥85% (VPFHT-3638, -3720)
Clear aperture	φ8.5mm (φD=φ12.5mm) φ22mm (φD=φ25mm)
Surface Quality (Scratch-Dig)	60-40

Guide

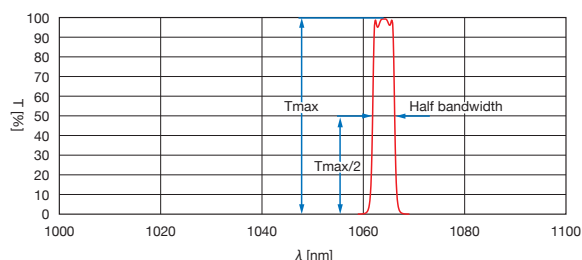
- ▶ Please contact our Sales Division for customized products. (customized outer diameter, wavelength characteristic, etc.)
- ▶ We also offer interference filters VPF with cutting range that is broad. [Reference](#) B254

Attention

- ▶ Characteristics of the interference filter is depending on the incident angle. If it is tilted from the optical axis, then the center transmitting wavelength is shifted toward the short wavelength, and transmittance also decreases. Please make sure to incident at 0 degrees collimated light or close to collimated (parallel) light to the optical axis. Angle dependence will increase as half-width range of transmittance becomes narrow.

Typical Transmittance Data

T: Transmission



568nm – 1064nm

Part Number	Center wavelength [nm]	Diameter φD [mm]	Half bandwidth [nm]	Short wavelength Blocking range OD5 Range (OD6 Range) [nm]	Long wavelength Blocking range OD5 Range (OD6 Range) [nm]
VPFHT-12.5C-5682	568	φ12.5	3.1±0.9	471.7 – 562.5	573.9 – 763.4
VPFHT-25C-5682	568	φ25		(522.7 – 559.7)	(576.7 – 625.0)
VPFHT-12.5C-6328	633	φ12.5	3.4±1.0	515.4 – 626.5	639.1 – 884.7
VPFHT-25C-6328	633	φ25		(582.2 – 623.3)	(642.3 – 696.1)
VPFHT-12.5C-6471	647	φ12.5	3.5±1.0	524.8 – 640.6	653.6 – 912.9
VPFHT-25C-6471	647	φ25		(595.3 – 637.4)	(656.8 – 711.8)
VPFHT-12.5C-6710	671	φ12.5	3.65±1.05	540.4 – 664.3	677.7 – 961.2
VPFHT-25C-6710	671	φ25		(617.3 – 660.9)	(681.1 – 738.1)
VPFHT-12.5C-7800	780	φ12.5	4.25±1.25	609.0 – 772.2	787.8 – 1201.8
VPFHT-25C-7800	780	φ25		(717.6 – 768.3)	(791.7 – 858.0)
VPFHT-12.5C-7850	785	φ12.5	4.25±1.27	612.0 – 777.0	793.0 – 1214.0
VPFHT-25C-7850	785	φ25		(722.0 – 773.0)	(797.0 – 864.0)
VPFHT-12.5C-8080	808	φ12.5	4.4±1.3	625.9 – 799.9	816.1 – 1039.4
VPFHT-25C-8080	808	φ25		(743.4 – 795.9)	(820.1 – 888.8)
VPFHT-12.5C-8300	830	φ12.5	4.5±1.3	639.1 – 821.7	838.3 – 1067.9
VPFHT-25C-8300	830	φ25		(763.6 – 817.6)	(842.5 – 913.0)
VPFHT-12.5C-8520	852	φ12.5	4.6±1.4	652.0 – 843.5	860.5 – 1106.6
VPFHT-25C-8520	852	φ25		(783.8 – 839.2)	(864.8 – 937.2)
VPFHT-12.5C-9760	976	φ12.5	5.25±1.55	722.2 – 966.2	985.8 – 1325.2
VPFHT-25C-9760	976	φ25		(897.9 – 961.4)	(990.6 – 1073.6)
VPFHT-12.5C-9800	980	φ12.5	5.3±1.6	724.4 – 970.2	989.8 – 1332.6
VPFHT-25C-9800	980	φ25		(901.6 – 965.3)	(994.7 – 1078.0)
VPFHT-12.5C-10471	1047	φ12.5	5.65±1.65	963.3 – 1036.6	1057.6 – 1398.6
VPFHT-25C-10471	1047	φ25		(963.3 – 1031.4)	(1062.8 – 1151.8)
VPFHT-12.5C-10640	1064	φ12.5	5.75±1.71	979.0 – 1053.0	1075.0 – 1429.0
VPFHT-25C-10640	1064	φ25		(979.0 – 1048.0)	(1080.0 – 1170.0)