

25mm (1") photomultiplier L25D32 series data sheet



PRELIMINARY

1 description

The L25D32 is a 25 mm (1") diameter, end window photomultiplier with a blue-green sensitive bialkali photocathode and 6 linear focused type dynodes.

2 applications

- low gain application

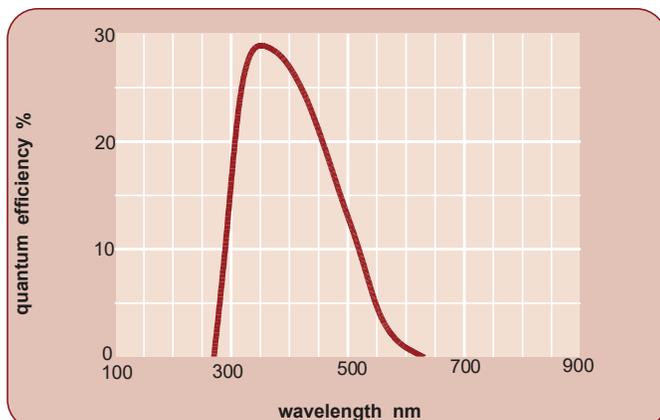
3 features

- fast time response

4 window characteristics

L25D32 hard glass	
spectral range*(nm)	290-630
refractive index (n)	1.49
K (ppm)	(tbd)
Th (ppb)	
U (ppb)	

5 typical spectral response curves

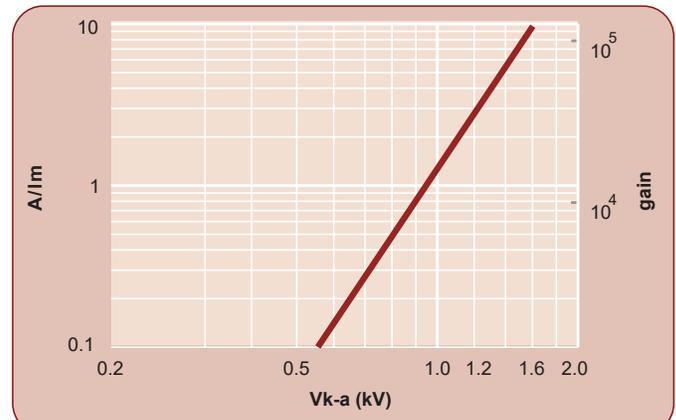


6 characteristics

	unit	min	typ	max
photocathode: bialkali				
active diameter	mm	22	-	
quantum efficiency at peak	%		28	
luminous sensitivity	$\mu\text{A/lm}$		80	
with CB filter		8.5	11	
with CR filter			2	
dynodes: 6 LF				
anode sensitivity:				
nominal anode sensitivity	A/lm		2	
max. rated anode sensitivity	A/lm		10	
overall V for nominal A/lm	V		1100	
overall V for max. rated A/lm	V		1600	
gain at nominal A/lm	$\times 10^4$		2.5	
dark current at 20°C:				
dc at nominal A/lm	nA		0.4	3
dc at max. rated A/lm	nA		2	
dark count rate	s^{-1}		-	
pulsed linearity(-5% deviation)	mA		TBD	
pulse height resolution:				
²² Na with 1" x 1" LSO air gap	%		12	
timing: at 1500 V				
multi electron rise time	ns		0.7	
single electron jitter (fwhm)	ps		TBD	
transit time	ns		8	
weight:	g		19	
maximum ratings:				
anode current	μA			100
cathode current	nA			20
gain	$\times 10^5$			1.2
anode sensitivity	A/lm		10	
temperature	°C	-30		50
V (k-a) ⁽¹⁾	V			1700
V (k-d1)	V			600
V (d-d) ⁽²⁾	V			225

⁽¹⁾ subject to not exceeding max. rated sensitivity ⁽²⁾ subject to not exceeding max. rated V(k-a)

7 typical voltage gain characteristics

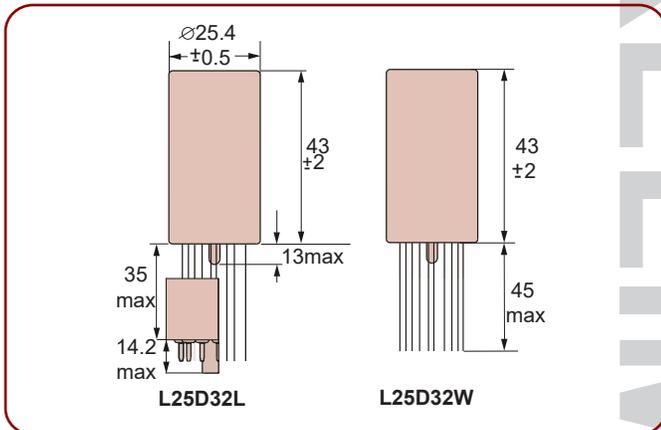


8 voltage divider distribution

k	d ₁	d ₂	d ₃	d ₄	d ₅	d ₆	a
4	1.5	1.5	1	1.5	1	1	Standard

Characteristics contained in this data sheet refer to standard divider.

9 external dimensions mm



11 ordering information

Product with special test requirements, integral voltage divider network or with one or more of the shielding options below will be assigned a suffix with the letter A followed by a unique 3 digit number to designate the requirement.

L25D32

base options

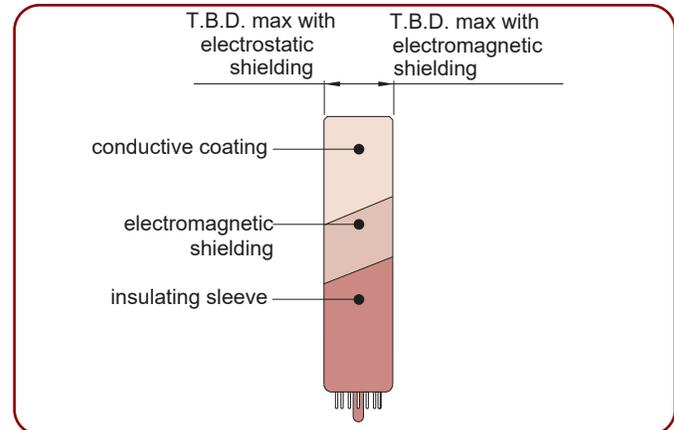
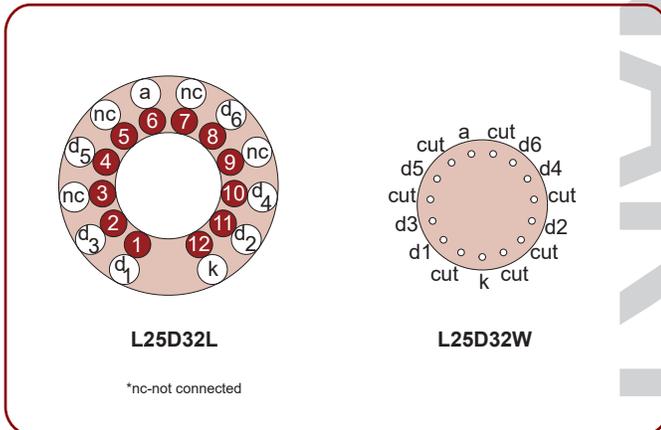
w flying lead
L temporary B12 cap

L25D32

specification options

A nnn special requirements
unique designator

10 base configuration (viewed from below)



12 voltage dividers

The L25D32 can be supplied with a custom designed voltage divider installed.