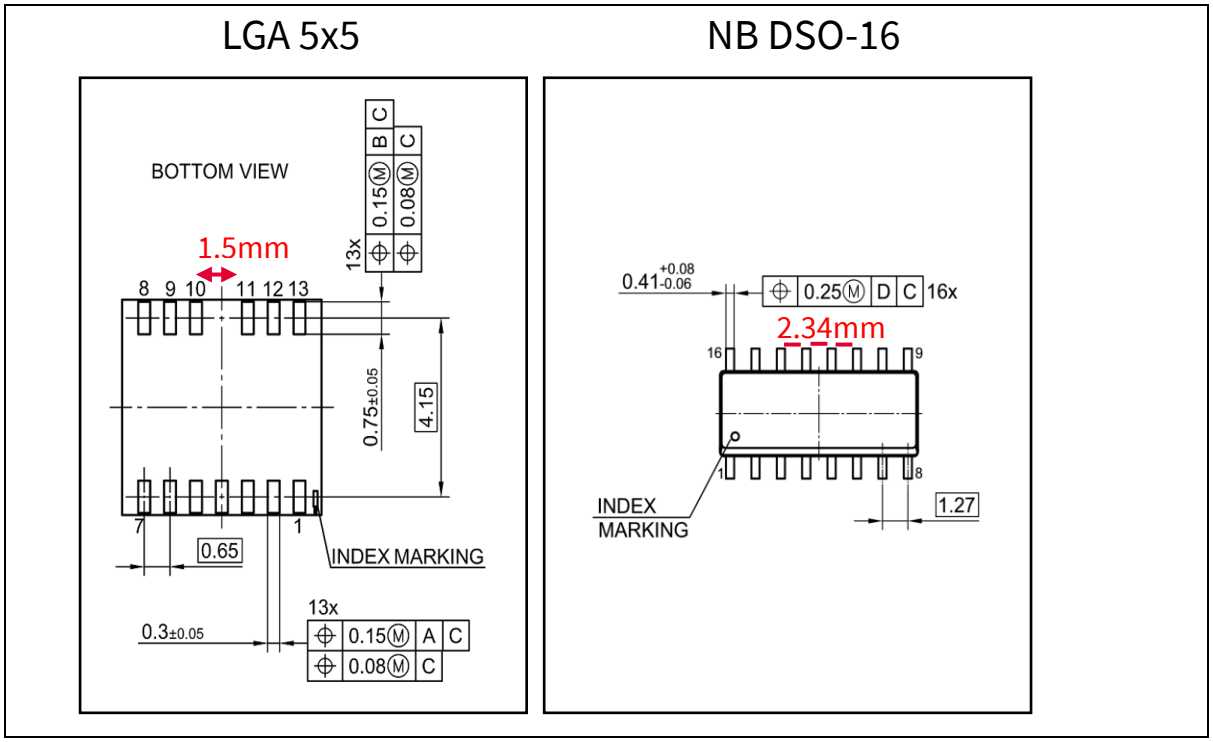
General rule of thumb is using the LGA package in LV (telecom bricks, class D wireless charging, solar micro inverter LV stage, UPS) /MV half-bridge applications (e.g. class D wireless charging) and NB DSO-16 in HV applications (Solar micro inverters HV stage, Server and telecom primary side).

If you really want to understand the exact border between the end-applications of the two packages, I suggest you to have a closer look to the packages. LGA and NB-DSO16 are characterized by different input-to-output and output channel-to-channel creepage (CRP) and clearance (CLR); in particular, the output channel-to-channel CRP and CLR (minimum values in picture below) are the dominating distances since are the smallest one.



If you are going to use the 2EDF as half bridge driver, you will have a certain working voltage between the 2 output channels (the ground of one channel is connected to the HB switching node, the other one is connected to the system ground). The ch-to-ch CRP of LGA and NB-DS16 packages limit the maximum working voltage you can have between the channels. Please refer to the table below, from IEC60950 IT and telecom system standards.

Table F.4 – Creepage distances to avoid failure due to tracking

Voltage r.m.s. [1]	Minimum creepage distances								
	Printed wiring material			Pollution degree					
	1	2	1	2			3		
	All material groups	All material groups, except IIIb	All material groups	Material group I	Material group II	Material group III	Material group I	Material group II	Material group III [2]
V	mm	mm	mm	mm	mm	mm	mm	mm	mm
10	0,025	0,040	0,080	0,400	0,400	0,400	1,000	1,000	1,000
12,5	0,025	0,040	0,090	0,420	0,420	0,420	1,050	1,050	1,050
16	0,025	0,040	0,100	0,450	0,450	0,450	1,100	1,100	1,100
20	0,025	0,040	0,110	0,480	0,480	0,480	1,200	1,200	1,200
25	0,025	0,040	0,125	0,500	0,500	0,500	1,250	1,250	1,250
32	0,025	0,040	0,14	0,53	0,53	0,53	1,30	1,30	1,30
40	0,025	0,040	0,16	0,56	0,80	1,10	1,40	1,60	1,80
50	0,025	0,040	0,18	0,60	0,85	1,20	1,50	1,70	1,90
63	0,040	0,063	0,20	0,63	0,90	1,25	1,60	1,80	2,00
80	0,063	0,100	0,22	0,67	0,95	1,30	1,70	1,90	2,10
100	0,100	0,160	0,25	0,71	1,00	1,40	1,80	2,00	2,20
125	0,160	0,250	0,28	0,75	1,05	1,50	1,90	2,10	2,40
160	0,250	0,400	0,32	0,80	1,10	1,60	2,00	2,20	2,50
200	0,400	0,630	0,42	1,00	1,40	2			3,20
250	0,560	1,000	0,56	1,25	1,80	2			4,00
320	0,75	1,60	0,75	1,60	2,20	3			
400	1,0	2,0	1,0	2,0	2,8	4			
500	1,3	2,5	1,3	2,5	3,6	5,0	6,3	7,1	8,0 (7,9) [4]
630	1,8	3,2	1,8	3,2	4,5	6,3	8,0 (7,9) [4]	9,0 (8,4) [4]	10,0 (9,0) [4]

215.5 V_{rms}

352.0 V_{rms}

1.5mm (LGA)

2.34mm (NB DSO-16)

For common applications with pollution degree 2 and material group II, the maximum working voltage is 215.5 Vrms and 352.0 Vrms respectively for the LGA and NB-DSO16 package. Those values give you an indication on the package to use. For example in an LLC application with typical 50% duty cycle, the typical working voltage is$\sqrt{50}\% \text{ x } 400\text{V} = 238\text{V}$. Moreover, you have to consider some margin due to repetitive overshoots with the switching event. In this application, you are forced to use the NB DSO-16 package (if you do not need reinforced isolation) or WB DSO-16 (if you need reinforced isolation).