

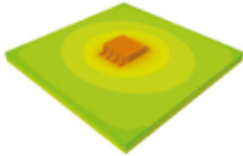


> LFPAK56

The automotive Power-SO8 that packs a punch

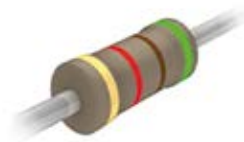
Providing a true alternative to DPAK and D²PAK, Nexperia's LFPAK56 portfolio gives industry leading performance in a truly innovative automotive grade package. Saving a considerable amount of space compared to traditional D²PAK and DPAK solutions, the LFPAK56 offers designers flexibility and reliability without compromising thermal performance and is available in both N-Channel and P-Channel.

Thermal Performance



- > Copper clip technology
- > High power density
- > Small footprint

Ultra Low On-Resistance



- > 0.9mOhm @ 40V
- > No internal wire bonds
- > Best-in-class performance

Reliable & Manufacturable



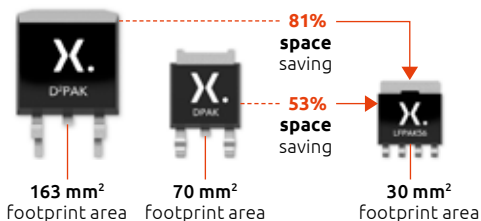
- > Best-in-class board level reliability
- > Easy optical inspection
- > Robust solder joints

High Current Rating



- > Up to 220 A current rating
- > High transient robustness
- > High-current, short-circuit capability

LFPAK56 Footprint Comparison



nexperia

LFPK56 Product Range (AEC-Q101 qualified)

V _{DS}	Type	R _{DS(on)} [max]@ V _{GS} = 10 V (mΩ)	I _D [max] (A)	R _{th(j-mb)} [max] (K/W)
40V	*BUK9J0R9-40H	0.9	220	0.3
	*BUK7J1R0-40H	1	220	0.3
	BUK9Y1R3-40H	1.3	190	0.38
	*BUK7J1R4-40H	1.4	190	0.38
	BUK7Y1R4-40H	1.4	190	0.38
	BUK9Y1R6-40H	1.6	150	0.51
	BUK7Y1R7-40H	1.7	150	0.51
	BUK9Y1R9-40H	1.9	120	0.69
	BUK7Y2R0-40H	2	120	0.69
	BUK9Y2R4-40H	2.4	120	0.79
	BUK7Y2R5-40H	2.5	120	0.92
	BUK9Y3R0-40E	2.5	120	1.13
	BUK9Y2R8-40H	2.8	120	0.87
	BUK7Y3R0-40H	3	120	1.13
	BUK7Y3R5-40H	3.5	120	1.3
	BUK7Y3R5-40E	3.5	100	0.9
	BUK9Y3R5-40E	3.6	100	0.9
	BUK9Y4R4-40E	3.7	100	1.02
	BUK7Y4R4-40E	4.4	100	1.02
	BUK9Y7R6-40E	6	79	1.58
	BUK9Y6R5-40H	6.5	70	2.35
	BUK7Y7R6-40E	7.6	79	1.58
	BUK9Y12-40E	10	52	2.31
	BUK7Y12-40E	12	52	2.31
BUK9Y21-40E	17	33	3.33	
BUK7Y21-40E	21	33	3.33	
BUK9Y29-40E	25	25	4.03	
BUK7Y29-40E	29	26	4.03	
60V	BUK9Y4R8-60E	4.1	100	0.63
	BUK7Y4R8-60E	4.8	100	0.63
	BUK9Y6R0-60E	5.2	100	0.77
	BUK9Y7R2-60E	5.6	100	0.9
	BUK7Y6R0-60E	6	100	0.77
	BUK7Y7R2-60E	7.2	100	0.9
	BUK9Y8R7-60E	7.5	86	1.02
	BUK7Y8R7-60E	8.7	87	1.02
	BUK9Y15-60E	13	53	1.58
	BUK7Y15-60E	15		1.59
	BUK9Y25-60E	21	34	2.31
	BUK7Y25-60E	25	34	2.31
	BUK9Y43-60E	38	22	3.33
	BUK7Y43-60E	43		3.33
	BUK9Y59-60E	52	16	4.03
	BUK7Y59-60E	59	17	4.03

V _{DS}	Type	R _{DS(on)} [max]@ V _{GS} = 10 V (mΩ)	I _D [max] (A)	R _{th(j-mb)} [max] (K/W)	
80V	BUK7Y7R8-80E	7.8	100	0.63	
	BUK9Y8R5-80E	8	100	0.63	
	BUK7Y9R9-80E	9.9	89	0.77	
	BUK9Y11-80E	10	84	0.77	
	BUK7Y14-80E	14	65	1.02	
	BUK9Y14-80E	14	62	1.02	
	BUK7Y25-80E	25	39	1.58	
	BUK9Y25-80E	25	37	1.58	
	BUK7Y41-80E	41	25	2.31	
	BUK9Y41-80E	41	24	2.33	
	BUK7Y72-80E	72	16	3.33	
	BUK9Y72-80E	72	15	3.33	
	BUK7Y98-80E	98	12	4.03	
	BUK9Y107-80E	98	11	4.03	
	100V	BUK9Y12-100E	11	85	0.63
		BUK7Y12-100E	12	85	0.63
		BUK9Y15-100E	14	69	0.77
		BUK7Y15-100E	15	68	0.77
BUK9Y19-100E		18	56	0.9	
BUK7Y19-100E		19	56	0.9	
BUK9Y22-100E		21	49	1.02	
BUK7Y22-100E		98	11	4.03	
BUK9Y38-100E		37	30	1.58	
BUK7Y38-100E		38	30	1.58	
BUK9Y65-100E		63	19	2.31	
BUK7Y65-100E		65	19	2.31	
BUK9Y113-100E		110	12	3.33	
BUK7Y113-100E		113	12	3.33	
BUK9Y153-100E		146	9.4	4.03	
BUK7Y153-100E	153	9.4	4.03		

V _{DS}	Type	R _{DS(on)} [max]@ V _{GS} = 10 V (mΩ)	I _D [max] (A)	R _{th(j-mb)} [max] (K/W)
-30V	BUK6Y10-30P	10	70	1.4
	BUK6Y19-30P	19	45	2.3
-40V	BUK6Y14-40P	14	64	1.4
	BUK6Y24-40P	24	40	2.3
-60V	BUK6Y33-60P	33	30	1.4
	BUK6Y61-60P	61	25	2.3

Products in italic and bold are the latest LFPK56 products
*New enhanced LFPK56E package

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