

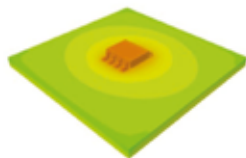


> LFPAK56

The automotive Power-SO8 that packs a punch

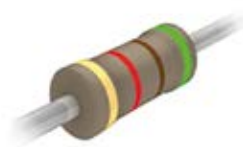
Providing a true alternative to DPAK and D²PAK, Nexperia's LFPAK56 portfolio gives industry leading performance in a truly innovative automotive grade package. Saving a considerable amount of space compared to traditional D²PAK and DPAK solutions, the LFPAK56 offers designers flexibility and reliability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

Thermal Performance



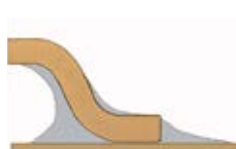
- > Copper clip technology
- > High power density
- > Small footprint

Ultra Low On-Resistance



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

Reliable & Manufacturable



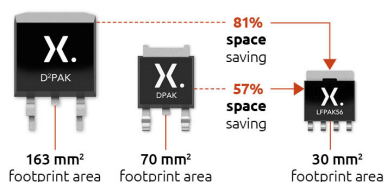
- > Best-in-class board level reliability
- > Easy optical inspection
- > Robust solder joints

High Current Rating



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

LFPAK56 Footprint Comparison



nexperia

LFPAK56 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 LFPAK56 products
*New enhanced LFPAK56E package

© 2020 Nexperia B.V.
All rights reserved. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice. No liability will be accepted by the publisher for any consequence of its use. Publication thereof does not convey nor imply any license under patent- or other industrial or intellectual property rights.

Date of release:
April 2020

