



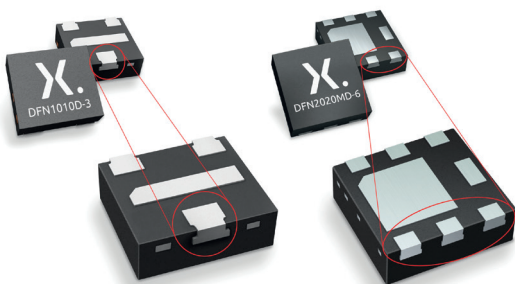
High volume small-signal MOSFETs for mobile and portables

Key features and benefits

- › Available in DFN0603, DFN0606, DFN1006, DSN1006, DSN1010, DFN1010, DFN2020 and WLCSP packages
- › High power capability (WLCSP)
- › Space efficiency with smallest DFN, DSN and WLCSP
- › Side-wettable flanks for optical solder inspection
 - Leadless packages contain tin plated side contacts for automatic optical inspection (DFN2020, DFN1010, DFN1006, DFN0606) (AOI) and improved solder joint quality
- › Replacement of larger packages
 - Performance improvements in wafer technology and in package technology
- › Pitch size compatibility across DFN0606 and DFN1006
- › Improved $R_{DS(on)}$ performance
- › Most types with ESD protection up to 2 kV
- › Broad portfolio's for optimum choice:
 - N-Channel and P-Channel
 - R_{DS} voltage range of 12 V – 100 V

Side-wettable flanks

(DFN2020, DFN1010, DFN1006, DFN0606)



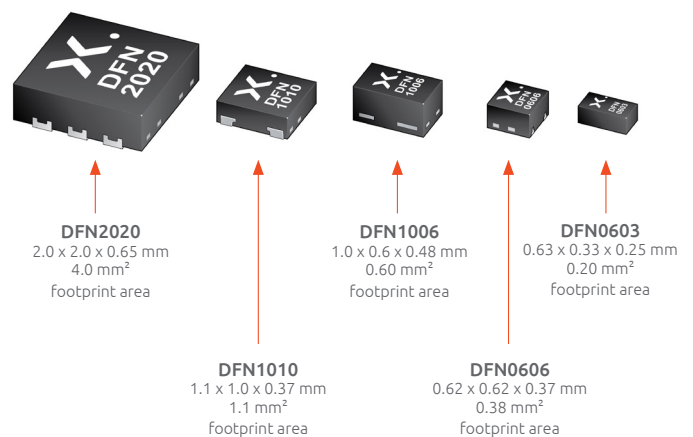
Applications

- › Load switching
- › Wireless charging
- › Battery switch
- › LED driver
- › Level translator
- › DC / DC conversion
- › Relay driver

Specialised for space-constrained applications:

- › Notebook
- › Smartphone
- › LCD TV
- › Tablet
- › Headphones
- › E-cigarette
- › Fitness band / smart watch
- › Hearing aids

Space efficiency with smallest DFN solutions



WLCSP

Package												WLCSP4	WLCSP6	WLCSP9
P _{tot} (mW)												1300	1300	1400
Pol	V _{DS} (V)	V _{GS} (V)	I _D (A)	V _{CSth} min. (V)	V _{CSth} max. (V)	ESD (kV)	R _{DS(on)} typ (mΩ) @ V _{GS} =							
							10 V	4.5 V	2.5 V	1.8 V	1.5 V			
N	12	8	6	0.4	0.9	2	-	36	46	60	86	PMCM4401VNE		
	20	8	5.5	0.4	0.9	2	-	43	55	65	75	PMCM4401UNE		
	60	20	6.1	0.9	1.5	2	28	31	-	-	-			PMCM950ENE
P	12	8	4.9	0.4	0.9	2	-	55	77	110	-	PMCM4401VPE		
			7.3	0.4	0.9	2	-	22	28	38	-		PMCM6501UPE	

DFN0603-3, DFN0606-3, DFN1006-3, DFN1006B-3

Package												DFN0603-3	DFN0606-3	DFN1006-3	DFN1006B-3	
P _{tot} (mW)												300	370	360	360	
Configuration	Pol	V _{DS} (V)	V _{GS} (V)	I _D (A)	V _{CSth} min. (V)	V _{CSth} max. (V)	ESD (kV)	R _{DS(on)} typ (mΩ) @ V _{GS} =								
								10 V	4.5 V	2.5 V	1.5 V					
Single	N	20	8	1.8	0.45	0.95	2		120	160	86			PMZ130UNE		
				1.4	0.5	0.95	2		130	150		PMX100UNE				
				1.5	0.45	0.95	2		170	200	75				PMZB150UNE	
				1.2	0.45	0.95	2		270	360				PMZ290UNE2	PMZB290UNE2	
		12	8	0.8	0.45	0.95	1		470	535			PMH600UNE			
				1.3	0.5	0.9			122	160		PMX100UN				
				1.4	0.45	0.95	2		210	240				PMZ200UNE	PMZB200UNE	
				0.82	0.5	0.9	2		190	330		PMX300UNE				
	30	8	0.9	0.45	0.95	2		390	460				PMZ390UNE			
			0.77	0.45	0.95	2		550	660			PMH550UNE				
			0.3	1.0	2.5			680	760		PMX700EN					
			0.5	1.0	2.5	1		800	870		PMX800ENE					
	P	20	8	0.35	1.1	2.1	2	2000	2100					NX7002BKH		
				0.35	1.1	2.1	2	2200	2500						NX7002BKM	
				1.4	0.45	0.95	1.8		330	420					PMZ350UPE	PMZB350UPE
				0.53	0.45	0.95	1		1000					PMH950UPE		
12		8	0.5	0.45	0.95	1		1020	1270					PMZ950UPE		
			0.9	0.5	0.9			334	398		PMX400UP					
			30	8	1	0.45	0.95	2		430	570				PMZ320UPE	
			50	10		0.45	0.95	2		1300				PMH1200UPE		
30	20	0.23	1.1	2.1	1	4500	5700					BSS84AKM	BSS84AKMB			

DFN2020MD-6, DFN2020M-6

Package												DFN2020MD-6	DFN2020M-6		
Configuration	Pol.	V _{DS} (V)	V _{GS} (V)	I _D (A)	V _{CSth} min. (V)	V _{CSth} max. (V)	ESD (kV)	R _{DS(on)} typ (mΩ) @ V _{GS} =							
								10 V	4.5 V	2.5 V	1.5 V				
Single	N	20	8	10.1	0.4	0.9	-		8.5	10	35		PMPB8XN		
				16.4	0.4	0.9	-		7.0					PMPB07R0UN	
				12.9	0.4	0.9	2	-	10	12	16		PMPB10XNE		
				11.4	0.4	0.9	2	-	12	15	20		PMPB12UNE		
		12	8	15	0.5	1			8.5					PMPB08R5XN	
				11.3	0.4	0.9	2	-	13	14	17		PMPB13XNE		
				10	0.4	0.9			16.5						PMPB16R5XNE
				17	1.2	2.2			7.3	9					PMPB07R3EN
	30	20	15	1	2			8.6					PMPB08R6EN		
			14	1	2	-	-	10	13	-	-		PMPB10EN		
			10.4	1	2	-	-	16.5	20.5	-	-		PMPB20EN		
			17.5	0.47	0.9			7.3						PMPB07R3VP	
	P	12	8	16.7	0.47	0.9			8.5					PMPB08R4VP	
				15	0.4	0.9			9.5					PMPB09R5VP	
				14	0.4	0.9			11.2						PMPB11R2VP
				10.3	0.47	0.9	2	-	19	22	28		PMPB20XPE		
30		20	12.5	1	2			12.5	16					PMPB12R5EP	
			12	1	2.5			12.7						PMPB12R7EP	
			12	1	2			14						PMPB14R0EP	
			11.2	1	2.5			14.7						PMPB14R7EP	
25	10.6	1	2.5			16	22					PMPB16EP			

DSN1006-3, DFN1010D-3, DFN1010B-6

Package												DSN1006-3	DSN1010-3	DFN1010D-3	DFN1010B-6
P _{tot} (mW)												480	1200	1000	350
Configuration	Pol.	V _{DS} (V)	V _{GS} (V)	I _D (A)	V _{CSth} min. (V)	V _{CSth} max. (V)	ESD (kV)	R _{DS(on)} typ (mΩ) @ V _{GS} =							
								10 V	4.5 V	2.5 V	1.5 V				
Single	N	12	8	14	0.4	0.9			13.2	16			PMCA14UN		
				1.1	0.4	0.9	1		34	39	50			PMXB40UNE	
		30	12	4.3	0.5	1.1	2		40	48		PMCB60XNE			
	P	8	4.5	0.6	1.1			40	48			PMCB60XN			
			20	3.2	1	2		49	56					PMXB56EN	
			12	8	2.4	0.45	0.95	1.5		59	78	198			PMXB65UPE
Dual	N	30	8	2.9	0.45	0.95	1		69	89	205			PMXB75UPE	
				30	20	2.4	1	2.5	1	100	125				PMXB120EPE
Complementary	N	20	8	0.6	0.45	0.95	1		470	620	1125			PMDXB600UNE	
				30	8	0.6	0.45	0.95	2		670	900	1500		
Complementary	P	20	8	0.6	0.45	0.95	1		470	620	1125				
				30	8	0.5	0.45	0.95	1		1020	1270	2300		

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