

Features

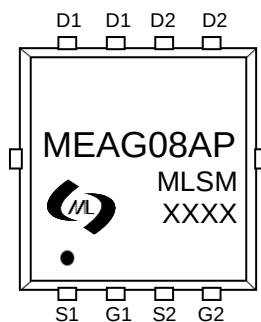
- High density cell design for ultra low $R_{DS(on)}$
- Fully characterized avalanche voltage and current
- Excellent package for good heat dissipation

Product Summary

V_{DS}	$R_{DS(ON)}$ TYP	I_D
-60V	100mΩ@-10V	-8A
	130mΩ@-4.5V	

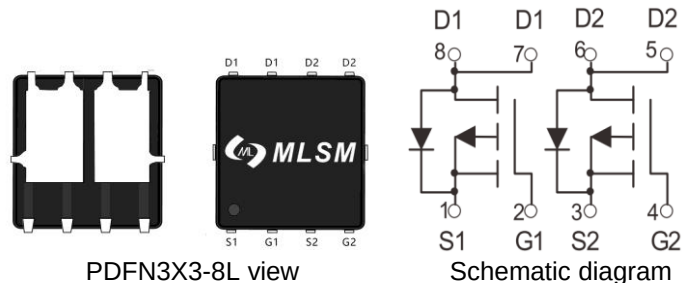
Application

- PWM applications
- Power management
- Load switch



MEAG08AP: Device code
 XXXX : Code

Marking and pin assignment



Absolute Maximum Ratings (TA=25°C unless otherwise noted)

Symbol	Parameter	Rating	Unit
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Common Ratings (TC=25°C Unless Otherwise Noted)

V_{DS}	Drain-Source Breakdown Voltage	-60	V
V_{GS}	Gate-Source Voltage	±20	V
T_J	Maximum Junction Temperature	150	°C
T_{STG}	Storage Temperature Range	-55 to 150	°C
I_S	Diode Continuous Forward Current	$T_C=25^\circ\text{C}$ -8	A

Mounted on Large Heat Sink

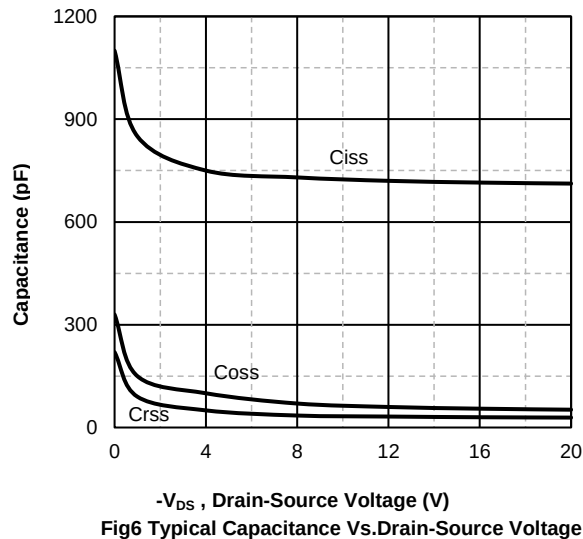
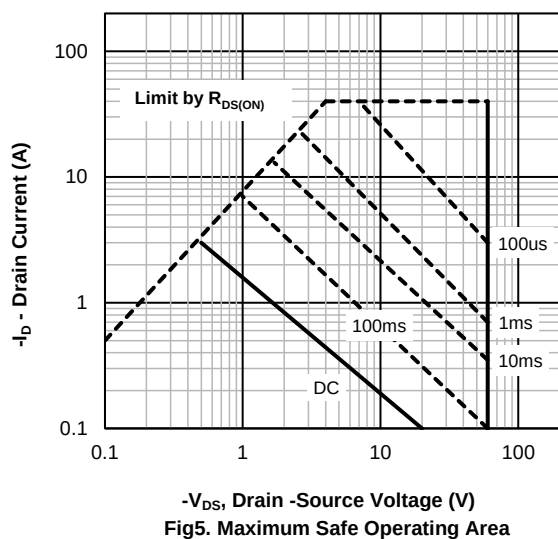
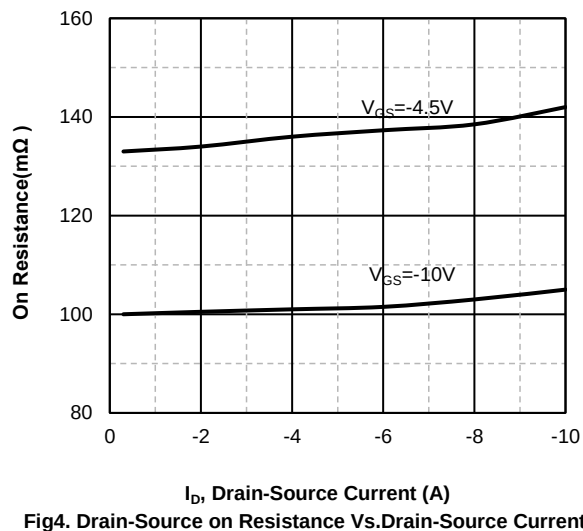
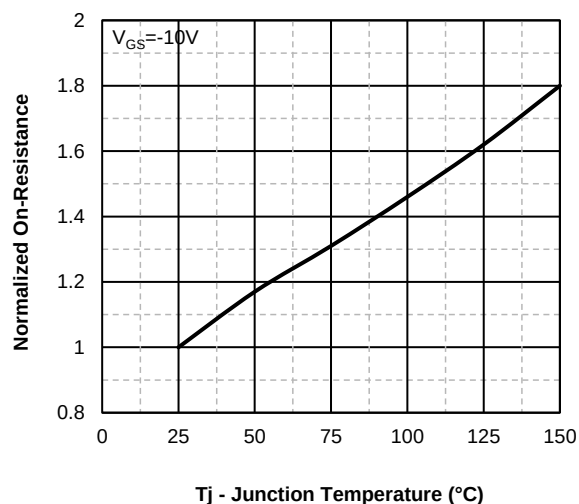
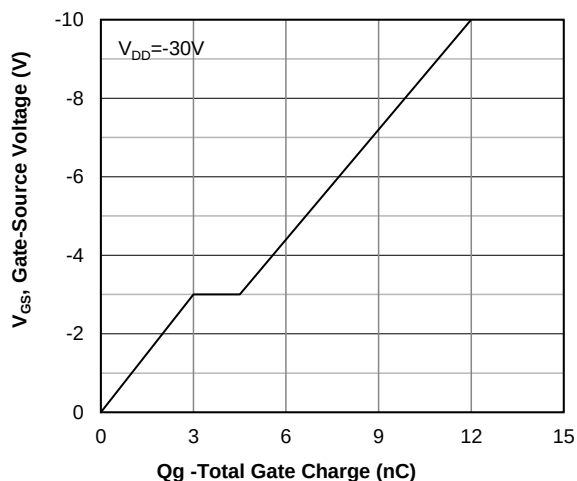
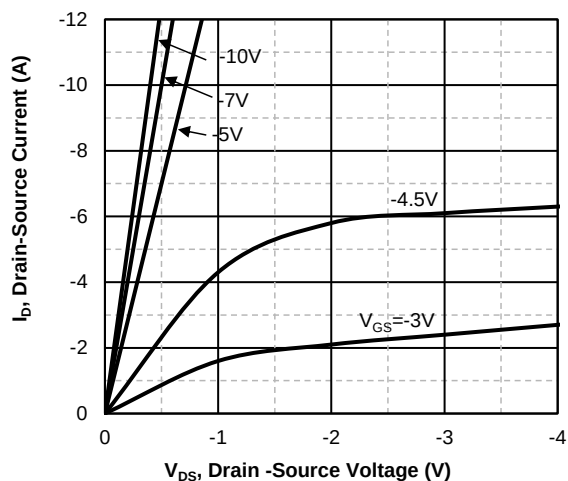
I_{DM}	Pulse Drain Current Tested	$T_C=25^\circ\text{C}$ -40	A
I_D	Continuous Drain Current	$T_C=25^\circ\text{C}$ -8	A
P_D	Maximum Power Dissipation	$T_C=25^\circ\text{C}$ 30	W
$R_{\theta JA}$	Thermal Resistance Junction-to-Ambient	50	°C/W

Ordering Information (Example)

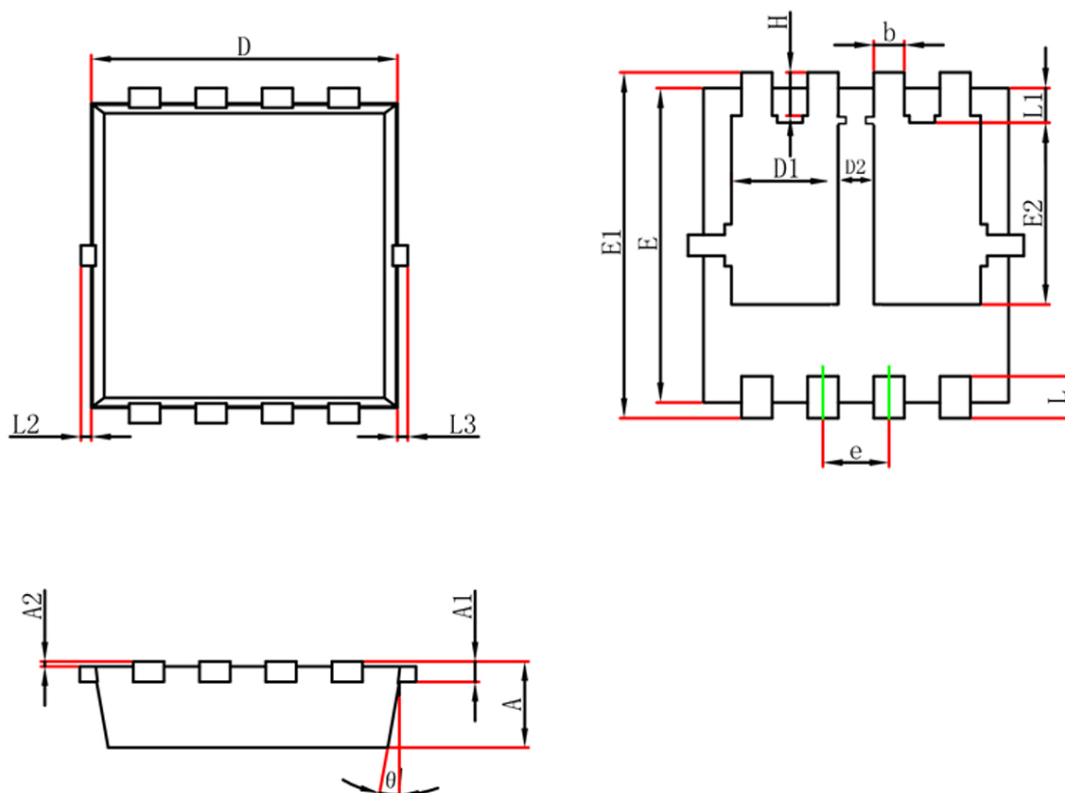
Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
MEAG08AP	PDFN3X3-8L	MEAG08AP	5,000	10,000	70,000	13"reel

Electrical Characteristics (TJ=25℃ unless otherwise noted)						
Symbol	Parameter	Condition	Min	Typ	Max	Unit
Static Electrical Characteristics @ TJ = 25℃ (unless otherwise stated)						
BV(BR)DSS	Drain-Source Breakdown Voltage	VGS=0V, ID=-250μA	-60	--	--	V
IDSS	Zero Gate Voltage Drain Current	VDS=-60V, VGS=0V	--	--	-1.0	μA
IGSS	Gate-Body Leakage Current	VGS=±20V, VDS=0V	--	--	±100	nA
VGS(th)	Gate Threshold Voltage	VDS=VGS, ID=-250μA	-1.0	-1.8	-2.5	V
RDS(on)	Drain-Source On-State Resistance	VGS=-10V, ID=-8A	--	100	140	mΩ
		VGS=-4.5V, ID=-5A	--	130	200	mΩ
Dynamic Electrical Characteristics @ TJ = 25℃ (unless otherwise stated)						
CISS	Input Capacitance	VDS=-15V, VGS=0V, f=1MHz	--	715	--	pF
COSS	Output Capacitance		--	51	--	pF
CRSS	Reverse Transfer Capacitance		--	34	--	pF
Switching Characteristics						
Qg	Total Gate Charge	VDS=-20V, ID=-7A, VGS=-4.5V	--	6	--	nC
Qgs	Gate Source Charge		--	3	--	nC
Qgd	Gate Drain Charge		--	2	--	nC
t _{d(on)}	Turn-on Delay Time	VDD=-12V, ID=-7A, VGS=-10V, RG=3.3Ω	--	10	--	nS
t _r	Turn-on Rise Time		--	17	--	nS
t _{d(off)}	Turn-Off Delay Time		--	22	--	nS
t _f	Turn-Off Fall Time		--	21	--	nS
Source- Drain Diode Characteristics						
VSD	Forward on voltage	TJ=25℃, IS=-8A	--	--	-1.2	V

Typical Operating Characteristics



PDFN3X3-8L Package information



Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	0.750	0.850	0.030	0.034
A1	0.152 REF.		0.006 REF.	
A2	0~0.05		0~0.002	
D	3.050	3.150	0.121	0.125
D1	0.985	1.085	0.039	0.043
D2	0.330	0.430	0.013	0.017
E	2.950	3.050	0.117	0.121
E1	3.250	3.350	0.129	0.132
E2	1.685	1.785	0.067	0.071
b	0.250	0.350	0.010	0.014
e	0.600	0.700	0.024	0.028
L	0.350	0.450	0.014	0.018
L1	0.280	0.380	0.011	0.015
L2	0~0.100		0~0.004	
L3	0~0.100		0~0.004	
H	0.350	0.450	0.014	0.018
θ	9°	13°	10°	12°