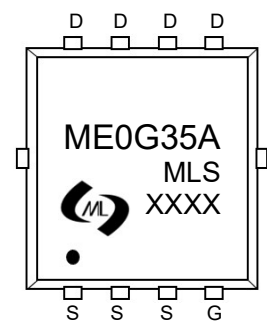


Features

- High Speed Power Switching, Logic level
- Enhanced Body diode DV/DT capability
- Enhanced Avalanche Ruggedness
- 100% UIS Tested, 100% Rg Tested
- Lead Free, Halogen Free

Application

- DC/DC Converter
- Motor Drivers
- Ideal for high-frequency switching and synchronous rectification



Marking and pin assignment

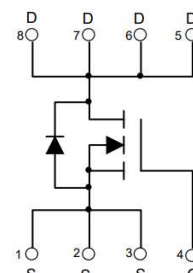
ME0G35A: Device code
XXXX: Code

Product Summary

V_{DS}	$R_{DS(ON)}$ MAX	I_D MAX
60V	18mΩ@10V	35A
	22mΩ@4.5V	



PDFN3X3-8L view



Schematic diagram



Pb-Free



Halogen-Free

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

Symbol	Parameter	Rating	Unit
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 175	°C
I_S	Diode Continuous Forward Current	$T_c=25^\circ\text{C}$ 35	A

Mounted on Large Heat Sink

I_{DM}	Pulse Drain Current Tested	$T_c=25^\circ\text{C}$ 100	A
I_D	Continuous Drain Current	$T_c=25^\circ\text{C}$ 35	A
P_D	Maximum Power Dissipation	$T_c=25^\circ\text{C}$ 40	W
$R_{\theta JA}$	Thermal Resistance Junction-Ambient	75	°C/W

Ordering Information (Example)

Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
ME0G35A	PDFN3X3-8L	ME0G35A	5,000	10,000	70,000	13" reel

Electrical Characteristics (TJ=25°C unless otherwise noted)						
Symbol	Parameter	Condition	Min	Typ	Max	Unit
Static Electrical Characteristics @ TJ = 25°C (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	μA
IGSS	Gate-Body Leakage Current	VGS=±20V, VDS=0V	--	--	±100	nA
VGS(th)	Gate Threshold Voltage	VDS=VGS, ID=250μA	1.0	1.5	2.5	V
RDS(on)	Drain-Source On-State Resistance	VGS=10V, ID=10A	--	14	18	mΩ
		VGS=4.5V, ID=5A	--	18	22	mΩ
Dynamic Electrical Characteristics @ TJ = 25°C (unless otherwise stated)						
CISS	Input Capacitance	VDS=30V, VGS=0V, f=1MHz	--	2030	--	pF
COSS	Output Capacitance		--	155	--	pF
CRSS	Reverse Transfer Capacitance		--	118	--	pF
Switching Characteristics						
Qg	Total Gate Charge	VDD=30V, ID=20A, VGS=10V	--	48	--	nC
Qgs	Gate Source Charge		--	7.3	--	nC
Qgd	Gate Drain Charge		--	14.8	--	nC
td(on)	Turn-on Delay Time	VDD=30V, ID=14.5A, VGS=10V, RG=3Ω	--	7.5	--	nS
tr	Turn-on Rise Time		--	5	--	nS
td(off)	Turn-Off Delay Time		--	28	--	nS
tf	Turn-Off Fall Time		--	5.5	--	nS
Source- Drain Diode Characteristics						
VSD	Forward on voltage	TJ=25°C, IS=35A	--	--	1.2	V

Typical Operating Characteristics

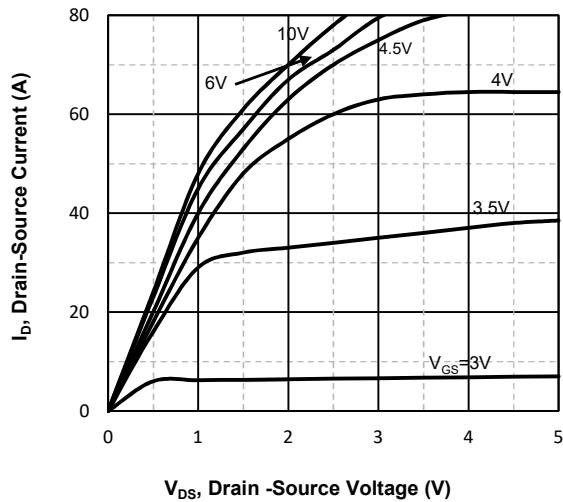


Fig1. Typical Output Characteristics

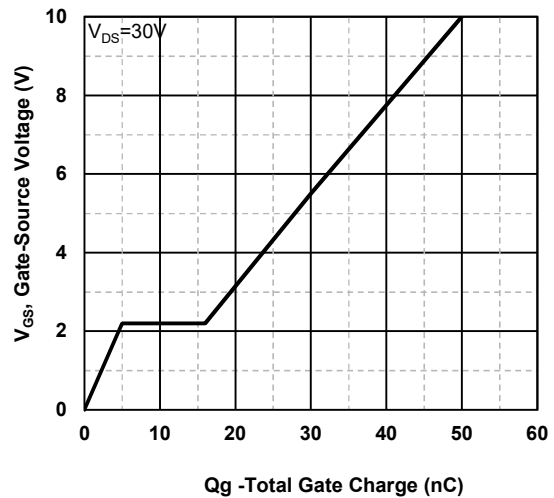


Fig2. Typical Gate Charge Vs. Gate-Source Voltage

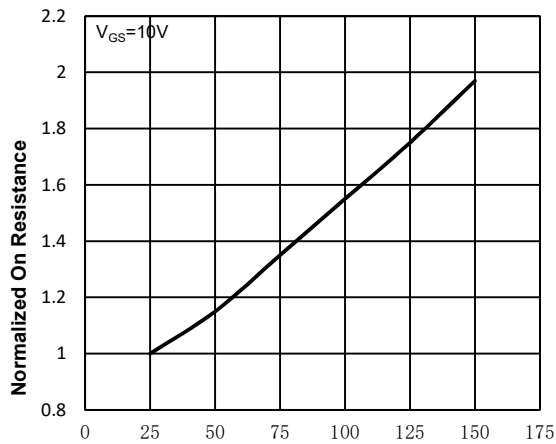


Fig3. Normalized On-Resistance Vs. Temperature

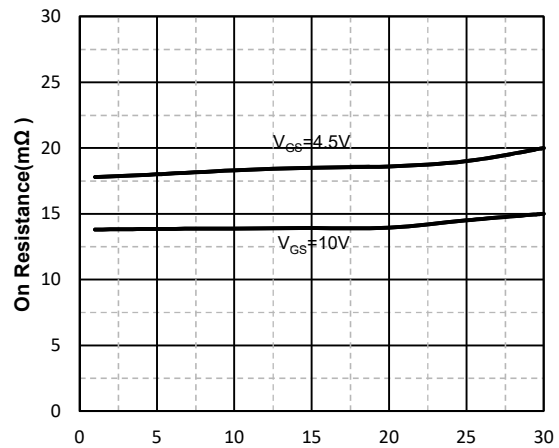


Fig4. On-Resistance Vs. Drain-Source Current

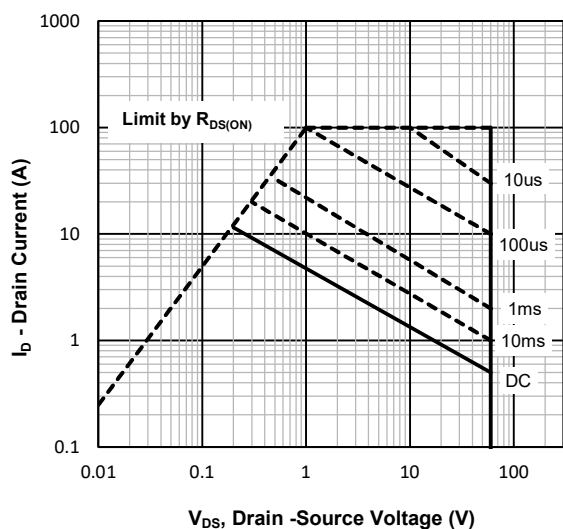


Fig5. Maximum Safe Operating Area

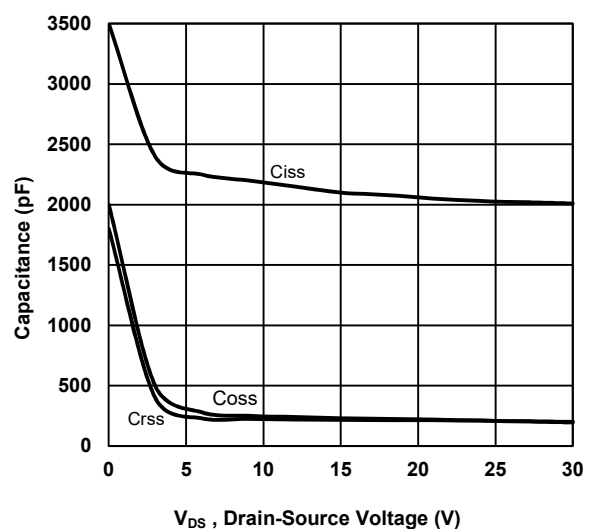
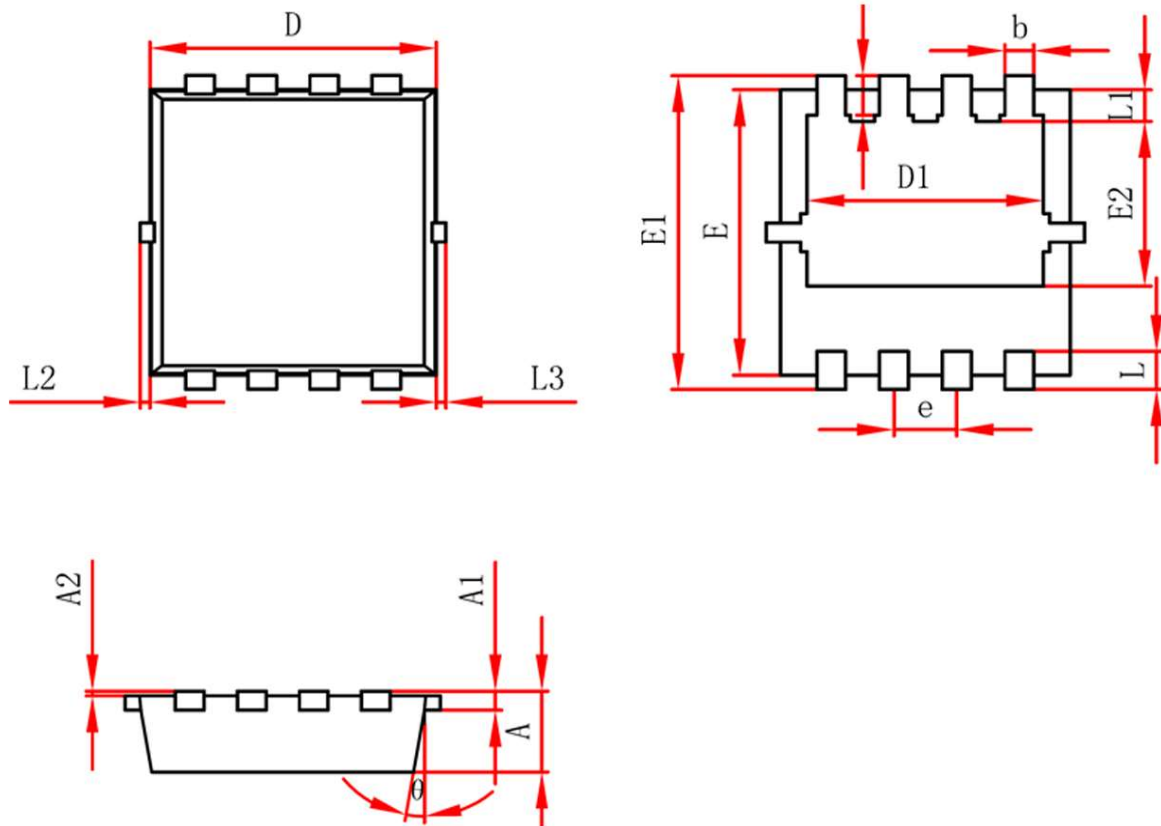


Fig6 Typical Capacitance Vs. Drain-Source Voltage

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	2.950	3.150	0.117	0.125
D1	2.400	2.500	0.095	0.099
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	0.325	0.425	0.013	0.017
L2	0~0.100		0~0.004	
L3	0~0.100		0~0.004	
H	0.365	0.465	0.014	0.018
θ	10°	12°	10°	12°