

Features

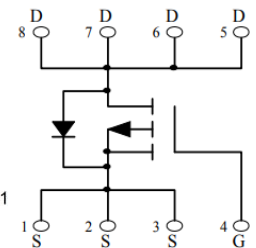
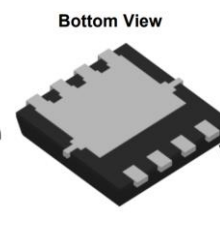
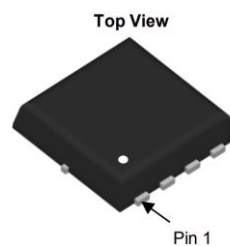
- High density cell design for ultra low $R_{DS(ON)}$
- Fully characterized avalanche voltage and current
- Good stability and uniformity with high E_{AS}

Application

- Battery and loading switching
- Excellent package for good heat dissipation

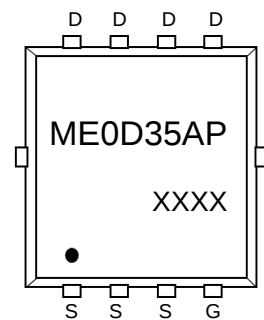
-30V/-35A P-Channel MOSFET Product Summary

V_{DS}	$R_{DS(ON)}$ MAX	I_D MAX
-30V	10.5mΩ@20V	-35A
	12.5mΩ@10V	



PDFN3X3-8L

Schematic diagram



ME0D35AP : Device code
XXXX : Code

Marking and pin assignment



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		-30	V
V _{GS}	Gate-Source Voltage		±25	V
E _{AS}	Single pulse avalanche energy		105	mJ
T _J , T _{STG}	Storage Temperature Range		-55 to 150	°C
I _S	Diode Continuous Forward Current	Tc=25°C	-35	A
Mounted on Large Heat Sink				
I _{DM}	Pulse Drain Current Tested	Tc=25°C	-160	A
I _D	Continuous Drain Current	Tc=25°C	-35	A
P _D	Maximum Power Dissipation	Tc=25°C	35	W
R _{θJA}	Thermal Resistance Junction-Ambient		83	°C/W

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	V _{GS} =0V, I _D =-250μA	-30	--	--	V
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =-25V, V _{GS} =0V	--	--	-1	μA
I _{GSS}	Gate-Body Leakage Current	V _{GS} =±25V, V _{DS} =0V	--	--	±100	nA
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =V _{GS} , I _D =-250μA	-1.2	-1.7	-2.8	V
R _{DS(on)}	Drain-Source On-State Resistance	V _{GS} =-20V, I _D =-12A	--	7	10.5	mΩ
		V _{GS} =-10V, I _D =-10A	--	9.5	12.5	mΩ
		V _{GS} =-4.5V, I _D =-8A	--	13.8	20.8	mΩ
Dynamic Electrical Characteristics @ TJ = 25℃ (unless otherwise stated)						
C _{ISS}	Input Capacitance	V _{DS} =-15V, V _{GS} =0V, f=1MHz	--	2150	--	pF
C _{OSS}	Output Capacitance		--	310	--	pF
C _{RSS}	Reverse Transfer Capacitance		--	245	--	pF
Switching Characteristics						
Q _g	Total Gate Charge	V _{DD} =-15V, I _D =-12A, V _{GS} =-10V	--	40.3	--	nC
Q _{gs}	Gate Source Charge		--	8.5	--	nC
Q _{gd}	Gate Drain Charge		--	8.8	--	nC
t _{d(on)}	Turn-on Delay Time	V _{DD} =-15V, I _D =-1A, V _{GS} =-10V, R _G =2.5Ω	--	8.3	--	nS
t _r	Turn-on Rise Time		--	19.2	--	nS
t _{d(off)}	Turn-Off Delay Time		--	75	--	nS
t _f	Turn-Off Fall Time		--	45	--	nS
Source- Drain Diode Characteristics						
V _{SD}	Forward on voltage	Tj=25℃, Is=-12A,	--	--	-1.2	V

Typical Operating Characteristics

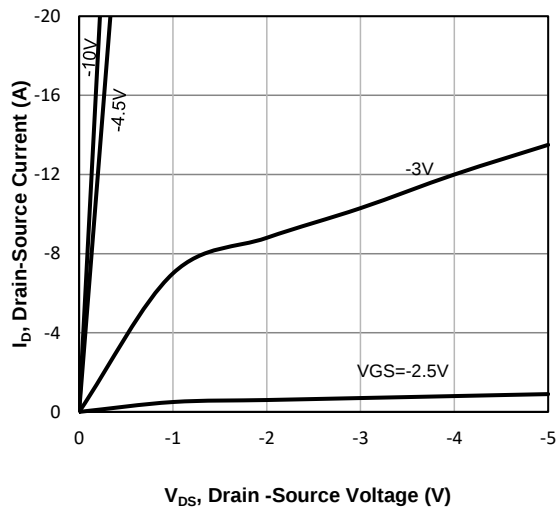


Fig1. Typical Output Characteristics

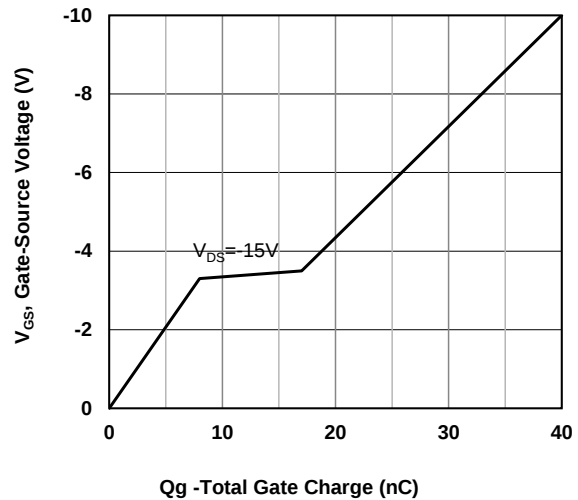


Fig2. Typical Gate Charge Vs. Gate-Source Voltage

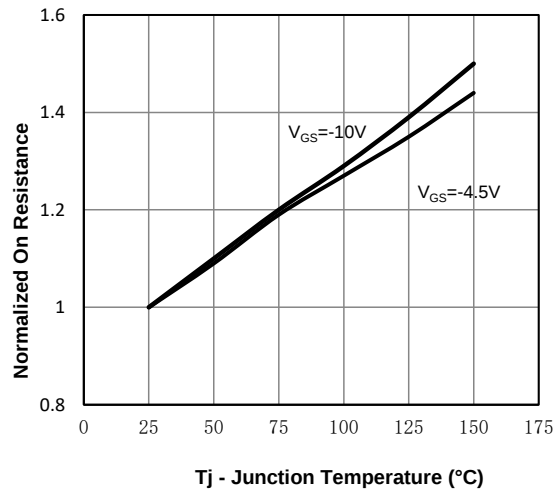


Fig3. Normalized On-Resistance Vs. Temperature

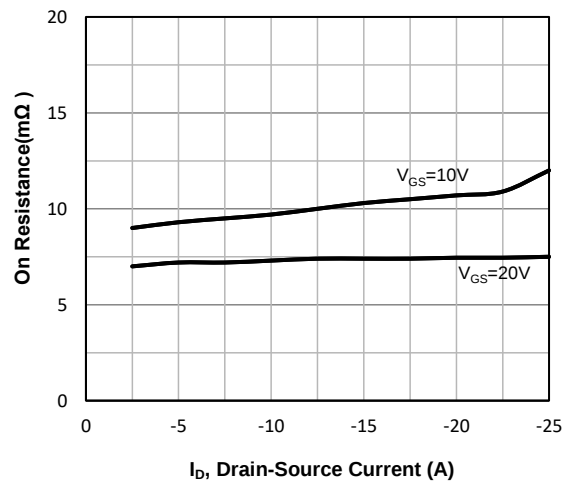


Fig4. On-Resistance Vs. Drain-Source Current

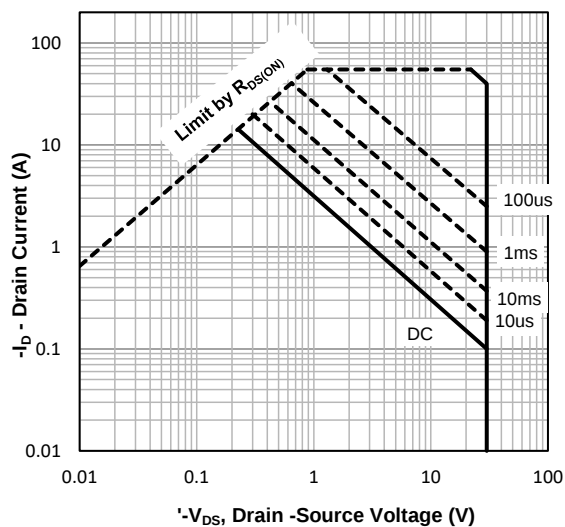


Fig5. Maximum Safe Operating Area

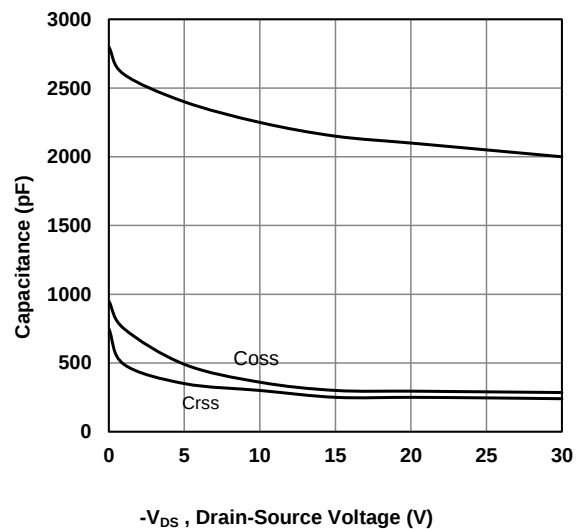


Fig6. Typical Capacitance Vs. Drain-Source Voltage

PDFN3X3-8L Package information

