60V 22mΩ N-Ch Power MOSFET

Features

- Low $R_{DS(ON)}$
- Low Gate Charge
- 100% UIS Tested, 100% R_g Tested
- Pb-free Lead Plating
- Halogen-free and RoHS-compliant

Product Summary

Parameter	Value	Unit
V_{DS}	60	V
$V_{GS(th)}$	1.7	V
I_D (@ V_{GS} = 10V) (1)	25	A
$R_{DS(ON)}$ (@ V_{GS} = 10V)	22	mΩ
$R_{DS(ON)}$ (@ V_{GS} = 4.5V)	28	mΩ

Applications

- Power Managerment in Telecom., Industrial Automation, CE
- Motor Driving in Power Tool, E-vehicle, Robotics
- Current Switching in DC/DC & AC/DC (SR) Sub-systems

PDFN5x6-8L

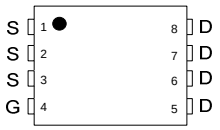
Top View

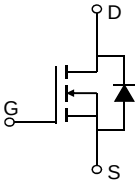


Bottom View

Pin Configuration

Top View



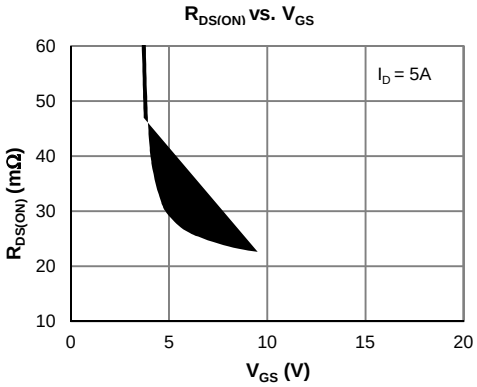


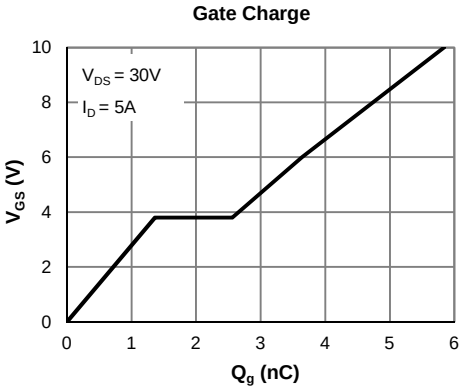
Ordering Information

Device	Package	# of Pins	Marking	MSL	T_J (°C)	Media	Quantity (pcs)
JMSL0630AG-13	PDFN5x6-8L	8	SL0630A	1	-55 to 150	13-inch Reel	5000

Absolute Maximum Ratings (@ T_A = 25ÁC unless otherwise specified)

Parameter		Symbol	Value	Unit
Drain-to-Source Voltage		V_{DS}	60	V
Gate-to-Source Voltage		V_{GS}	Ñ20	V
Continuous Drain Current (1)	T_C = 25ÁC	I_D	25	A
	T_C = 100ÁC		16.4	
Pulsed Drain Current (2)		I_{DM}	61	A
Avalanche Energy (3)		E_{AS}	13.5	mJ
Power Dissipation (4)	T_C = 25ÁC	P_D	35	W
	T_C = 100ÁC		14.2	
Junction & Storage Temperature Range		T_J, T_{STG}	-55 to 150	ÁC





Typical Electrical & Thermal Characteristics

Typical Electrical & Thermal Characteristics

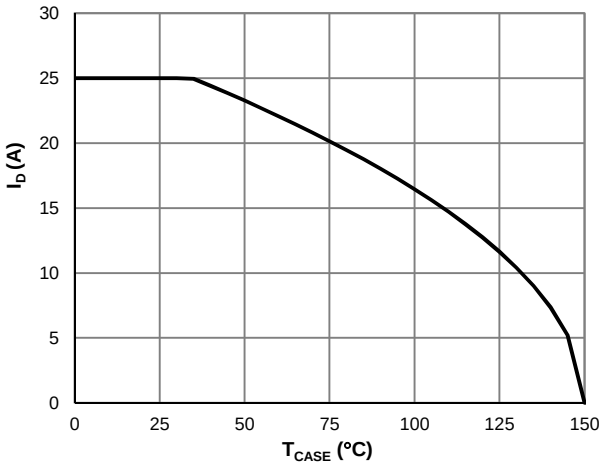


Figure 9: Current De-rating

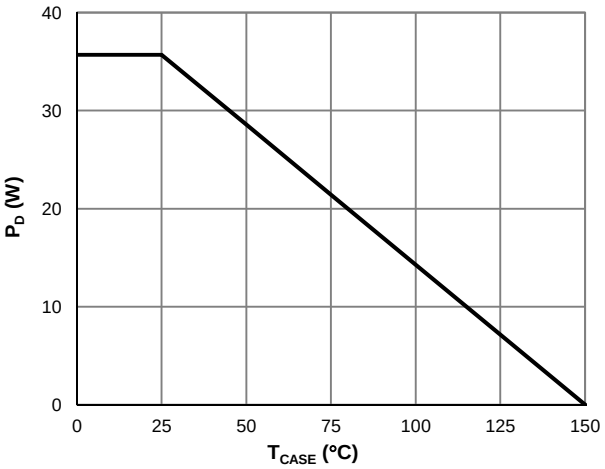
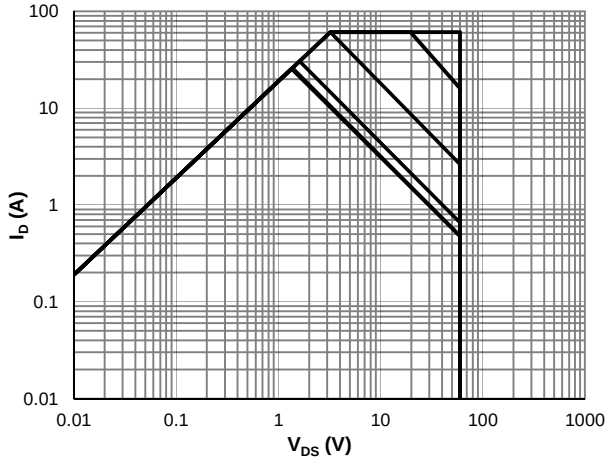


Figure 10: Power De-rating



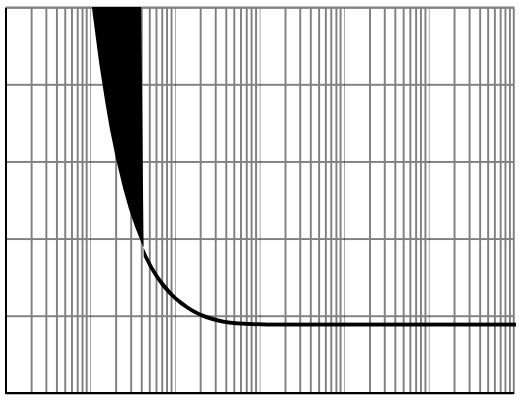
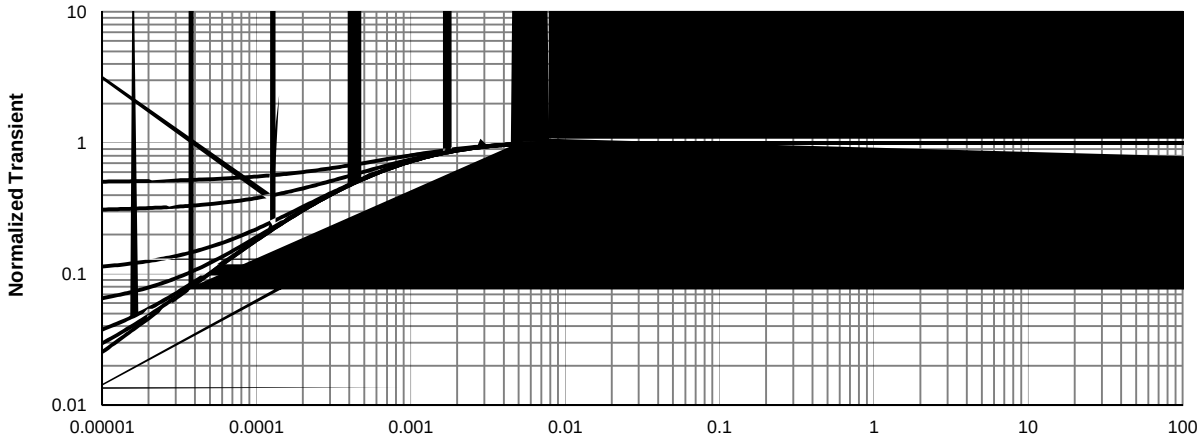
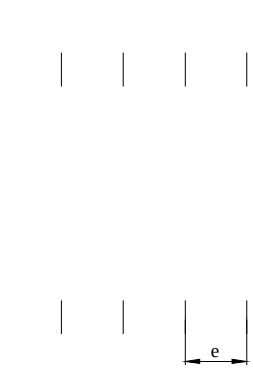


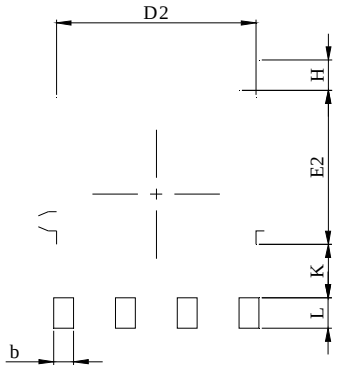
Figure 11: Maximum Safe Operating Area

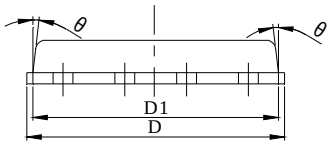
Typical Electrical & Thermal Characteristics



PDFN5x6-8L Package Information







DIM.	MILLIMETER		
	MIN.	NOM.	MAX.
A	0.90	1.00	1.10
b	0.31	0.41	0.51
c	0.20	0.25	0.30
D	5.00	5.20	5.40
D1	4.95	5.05	5.15
D2	4.00	4.10	4.20
E	6.05	6.15	6.25
E1	5.50	5.60	5.70
E2	3.42	3.53	3.63
e		1.27BSC	
H	0.60	0.70	0.80
L	0.50	0.70	0.80
K		1.23 REF	
θ	-	-	10Á

Recommended Soldering Footprint