100V 6.0m N-Ch Power MOSFET

Features

- Ultra-low ON-resistance $R_{DS(ON)}$
- Low Gate Charge Q_g
- 100% UIS and R_g Tested
- Pb-free Lead Plating
- Halogen-free and RoHS-compliant
- AEC-Q101 Qualified for Automotive Applications

Product Summary

Parameter	Value	Unit
V_{DS}	100	V
$V_{GS(th)\_Typ}$	1.8	V
I_D (@ V_{GS} = 10V) (1)	88	A
$R_{DS(ON)\_Typ}$ (@ V_{GS} = 10V)	6.0	m
$R_{DS(ON)\_Typ}$ (@ V_{GS} = 4.5V)	8.0	m

Pin Configuration

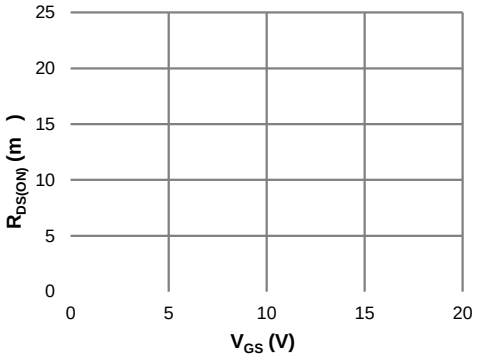
Top View

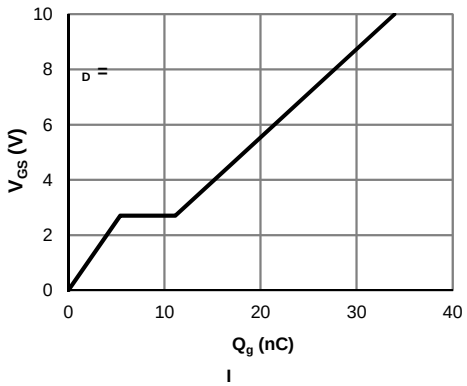
Ordering Information

Device	Package	# of Pins	Marking	MSL	T_J (°C)	Media	Quantity (pcs)
JMSL1008AGQ-13	PDFN5x6-8L	8	SL1008AQ	1	-55 to 175	13-inch Reel	5000

Absolute Maximum Ratings (@ T I

Parameter		Symbol	Value	Unit
Drain-to-Source Voltage		V_{DS}	100	V
Gate-to-Source Voltage		V_{GS}	±20	V
Continuous Drain Current (1)	T_C = 25°C	I_D	88	A
	T_C = 100°C		62	
Pulsed Drain Current (2)		I_{DM}	351	A
Avalanche Current (3)		I_{AS}	28	A
Avalanche Energy (3)		E_{AS}	118	mJ
Power Dissipation (4)	T_C = 25°C	P_D	125	W
	T_C = 100°C		63	
Junction & Storage Temperature Range		T_J, T_{STG}	-55 to 175	°C





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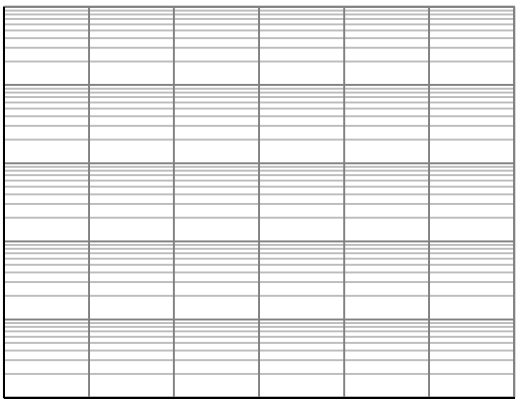
Symbol			Min.	Typ.	Max.	Unit
$V_{(BR)DSS}$			100			V
	V_{DS} = 80V, V_{GS} = 0V				1.0	
		T_J				

Typical Electrical & Thermal Characteristics



Typical Electrical & Thermal Characteristics

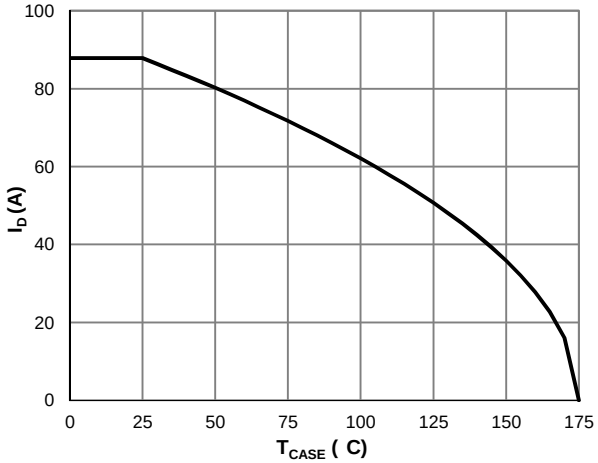


Figure 7: Current De-rating

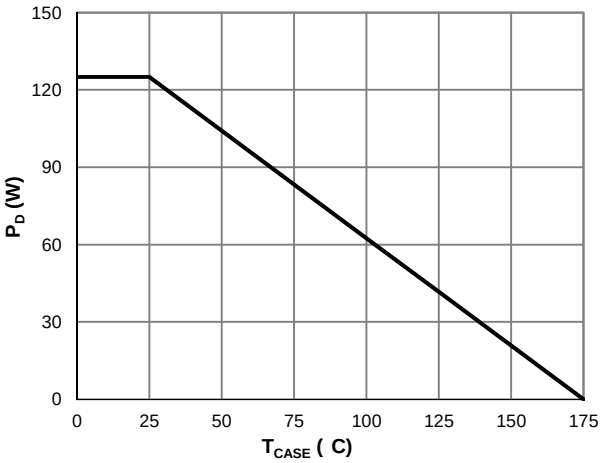
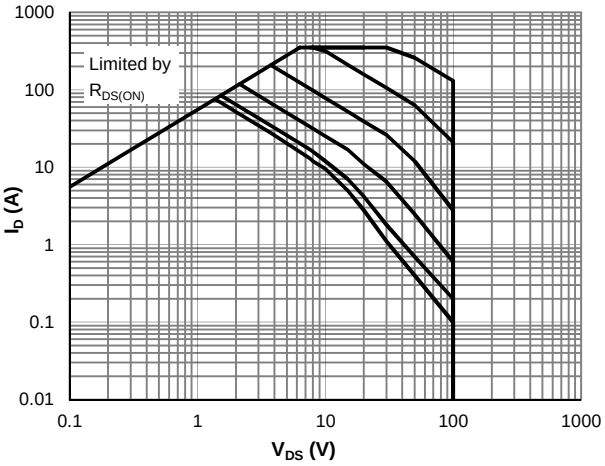


Figure 8: Power De-rating



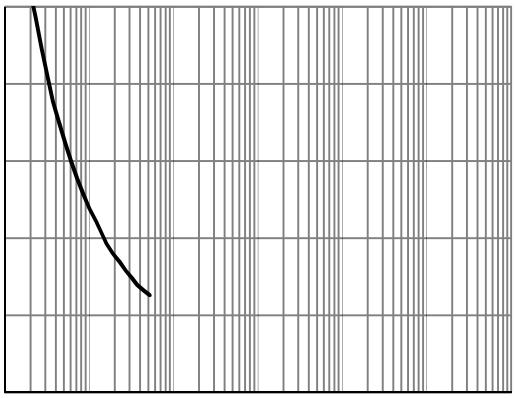


Figure 9: Maximum Safe Operating

PDFN5x6-8L Package Information