

# 100V 6.0m N-Ch Power MOSFET

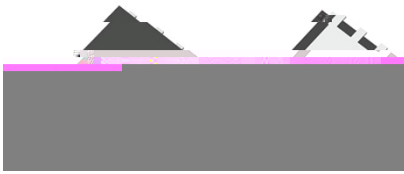
## Features

- Ultra-low  $R_{DS(ON)}$
- Low Gate Charge,  $Q_g$
- 100% UIS and  $\beta$  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
$I_D$ (@ $V_{GS} = 10V$ ) <sup>(1)</sup>	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

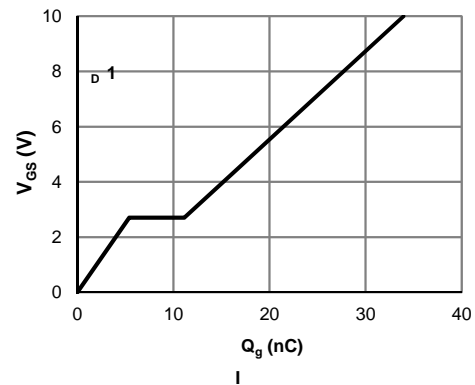
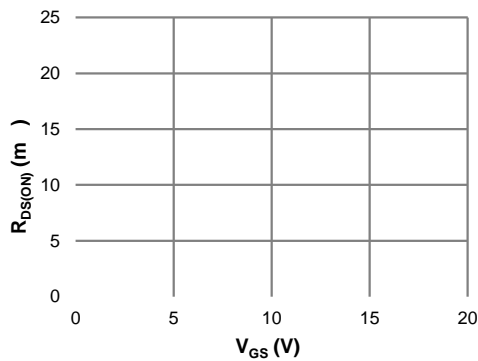


## Ordering Information

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 (@ $T_J = 25^\circ C$ )

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





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







### Typical Electrical & Thermal Characteristics

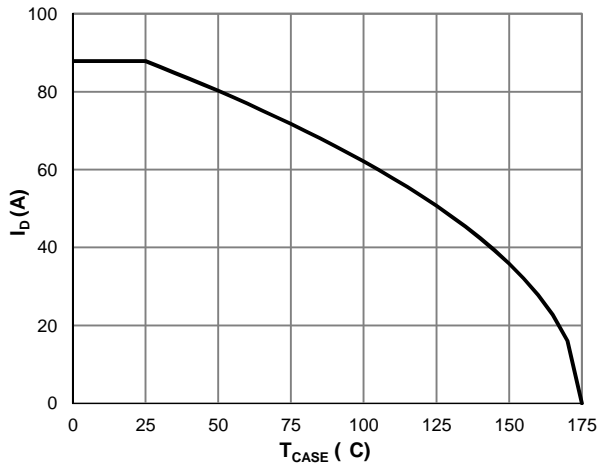


Figure 7: Current De-rating

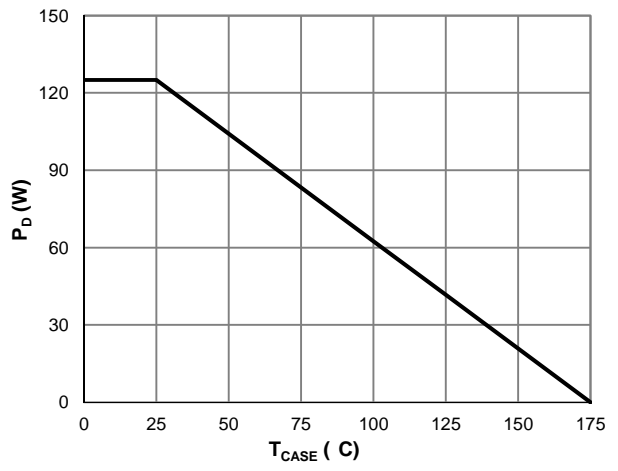


Figure 8: Power De-rating

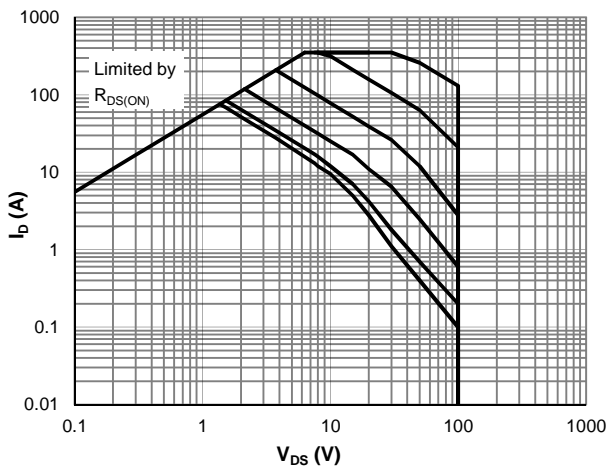
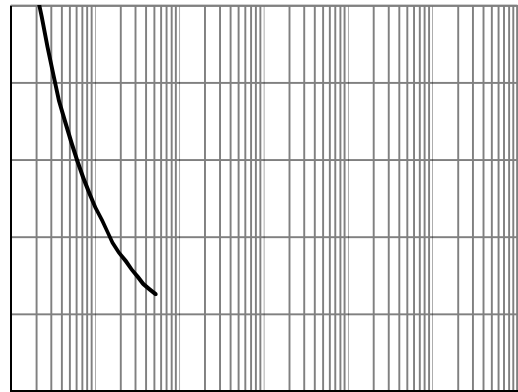


Figure 9: Maximum Safe Operating





PDFN5x6-8L Package Information

