

100V 6.0m N-Ch Power MOSFET

Features

- Ultra-low $R_{DS(ON)}$
- Low Gate Charge, Q_g
- 100% UIS and β 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

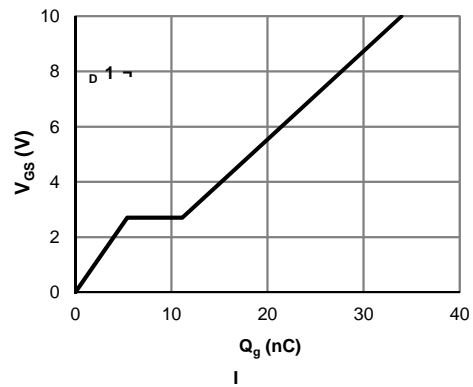
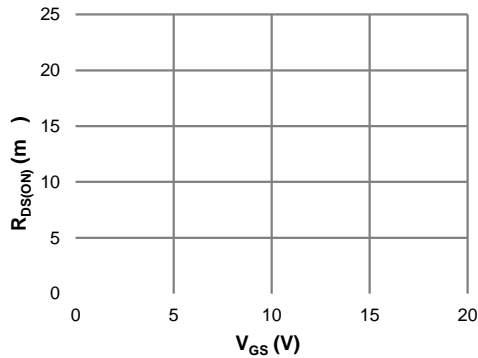


Ordering Information

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_c (°C) $I = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Drain-to-Source Voltage	V_{DS}	100	V
Gate-to-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current ⁽¹⁾	I_D	$T_C = 25^\circ\text{C}$	88
		$T_C = 100^\circ\text{C}$	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⁾	P_D	$T_C = 25^\circ\text{C}$	125
		$T_C = 100^\circ\text{C}$	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

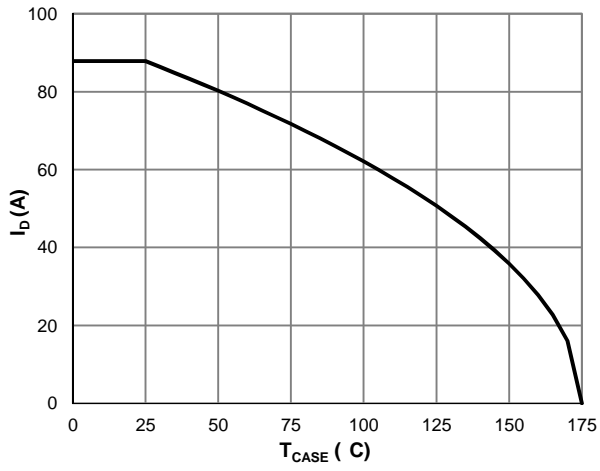


Figure 7: Current De-rating

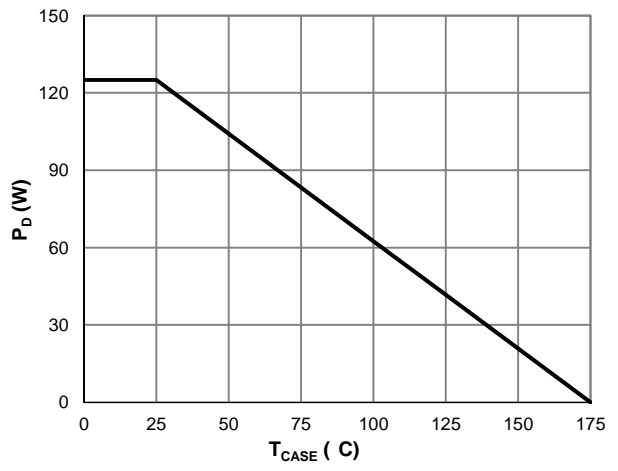


Figure 8: Power De-rating

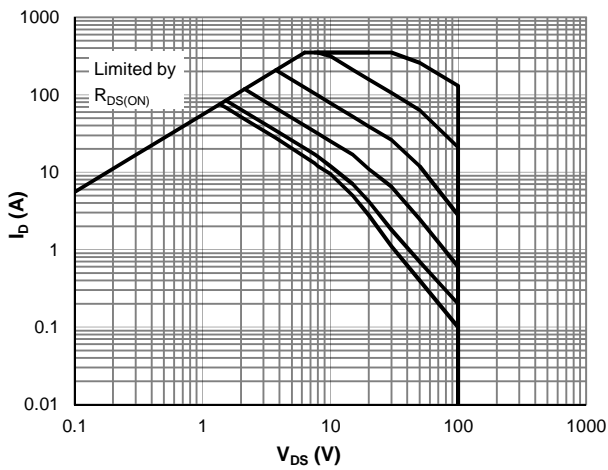
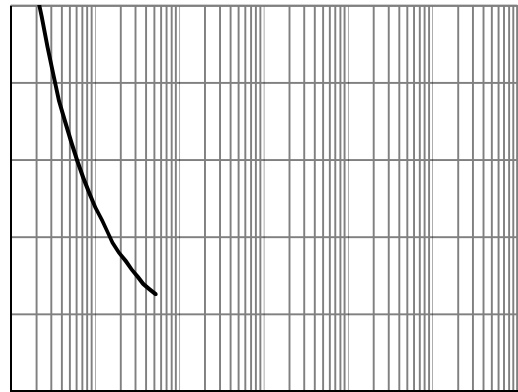


Figure 9: Maximum Safe Operating





PDFN5x6-8L Package Information

