JMSH11300G2LDQ

Product Summary

Parameters	Value	Unit
V_{DSS}	110	V
$V_{GS(th)_Typ}$	3.2	V
I_D(@V_{GS}=10V)	38	A
$R_{DS(ON)_Typ}$(@V_{GS}=10V	22	m

RoHS

PDFN5X6-8L-D **Pin Assignment**

Ordering Information

Device	Marking	MSL	Form	Package	Reel(pcs)	Per Carton (pcs)
JMSH11300G2LDQ-13	SH113002LDQ	1	Tape&Reel	PDFN5x6-8L-D	5000	50000

Absolute Maximum Ratings (@ T_C = 25°C unless otherwise specified)

Symbol	Parameter		Value	Unit
V_{DS}	Drain-to-Source Voltage		110	V
V_{GS}	Gate-to-Source Voltage		±20	V
I_D	Continuous Drain Current	T_C = 25°C	38	A
		T_C = 100°C	27	
I_{DM}	Pulsed Drain Current (1)		Refer to Fig.4	A
E_{AS}	Single Pulsed Avalanche Energy (2)		47	mJ
P_D	Power Dissipation	T_C = 25°C	94	W
		T_C = 100°C	47	
T_J, T_{STG}	Junction & Storage Temperature Range		-55 to 175	°C

Thermal Characteristics

Symbol	Parameter	Max	Unit
R	Thermal Resistance, Junction to Ambient(3)	58	°C/W
R	Thermal Resistance, Junction to Case	1.6	

Electrical Characteristics (T_J = 25°C unless otherwise specified)

Symbol	Conditions	Min.	Typ.	Max.	Unit
Off Characteristics					
$V_{(BR)DSS}$		110	-	-	V
I_{DSS}		-	-	1.0	A
I_{GSS}		-	-	±100	nA
$V_{GS(th)}$		2.0	3.2	4.0	V
$R_{DS(ON)}$		-	22	30	m
R_g		-	2.2	-	
C_{iss}		-	659	890	pF
C_{oss}		-	230	315	pF
C_{rss}		-	8	15	pF
Q					

Typical Performance Characteristics

Figure 1: Power De-rating

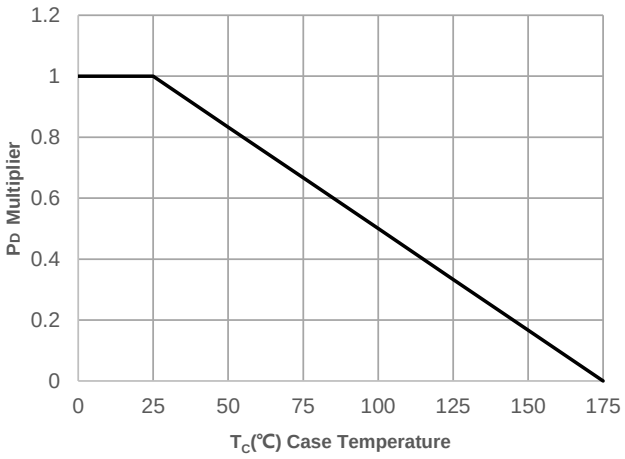
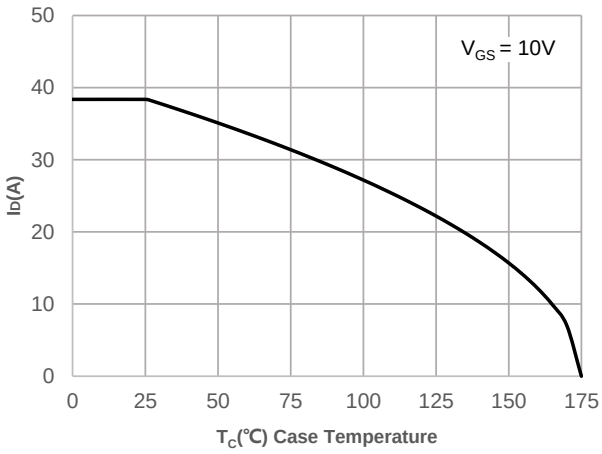
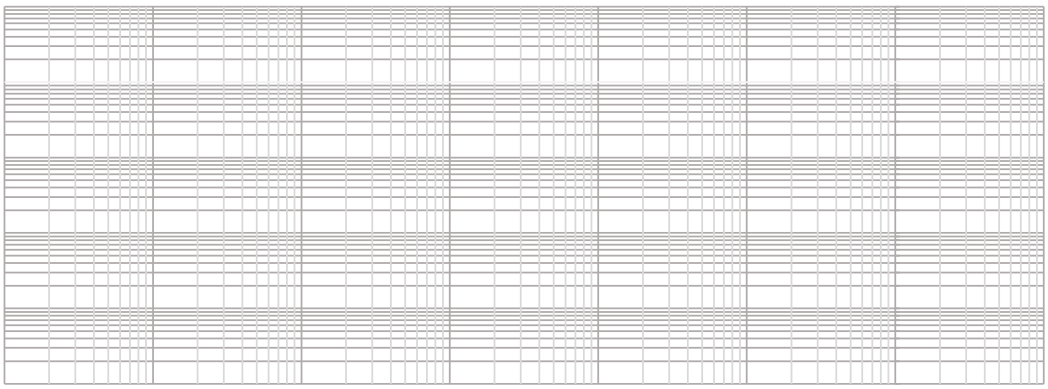
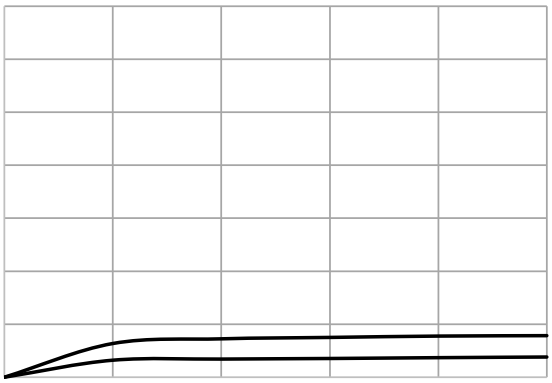


Figure 2: Current De-rating





Typical Performance Characteristics



Typical Performance Characteristics

Figure 11: Normalized Breakdown Voltage vs. Junction Temperature

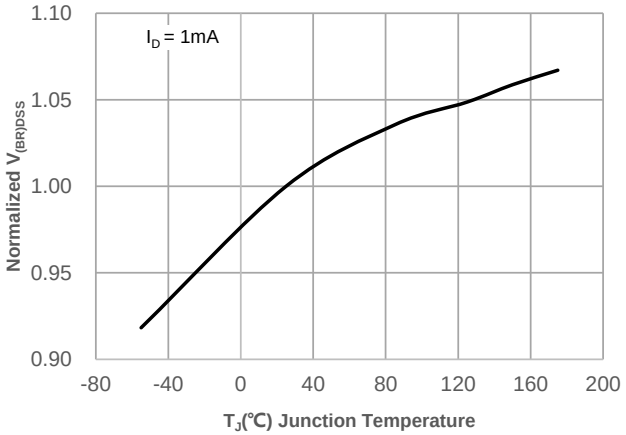
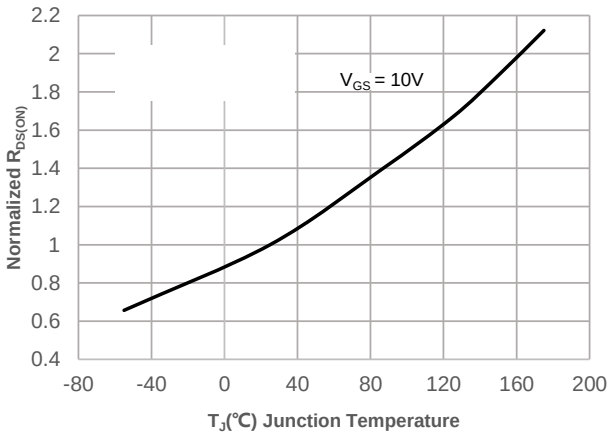


Figure 12: Normalized on Resistance vs. Junction Temperature



Test Circuit



Figure 1: Gate Charge Test Circuit & Waveform

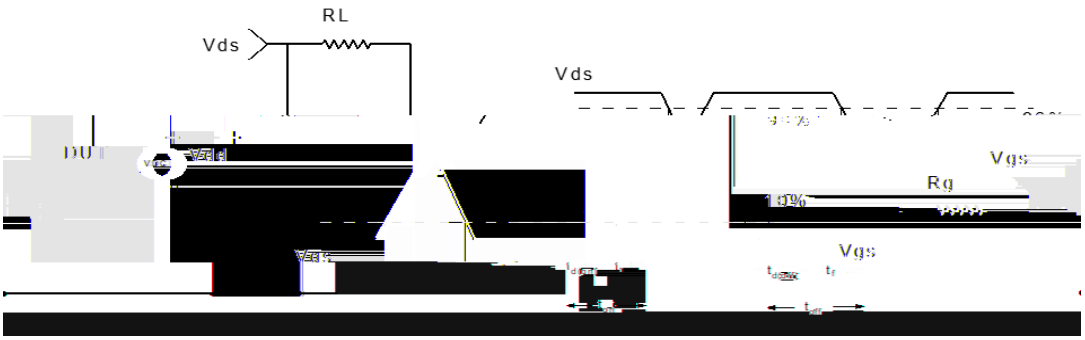


Figure 2: Resistive Switching Test Circuit & Waveform

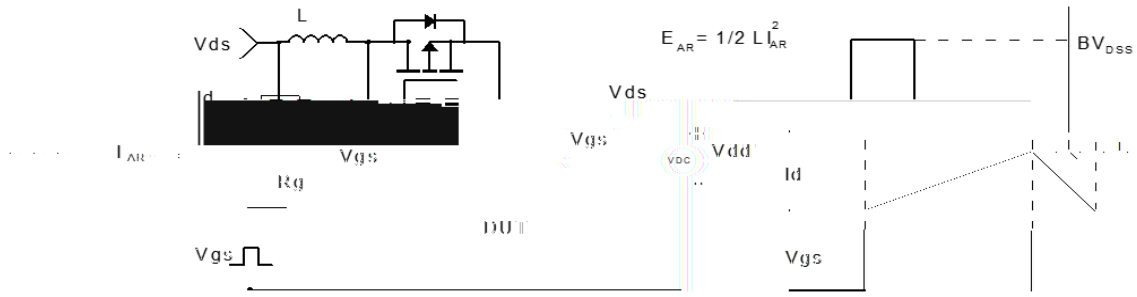


Figure 3: Unclamped Inductive Switching Test Circuit& Waveform

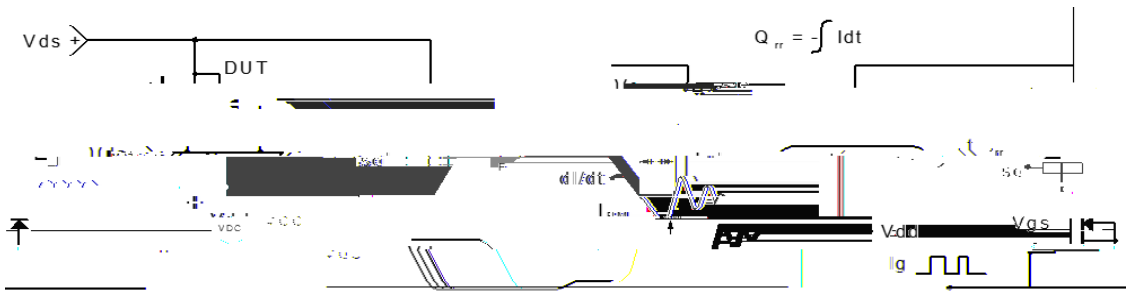


Figure 4: Diode Recovery Test Circuit & Waveform

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