JMSL04048G4LQ

Product Summary

Parameters	Value	Unit
V_{DSS}	40	V
$V_{GS(th)_Typ}$	1.8	V
I_D(@V_{GS}=10V)	94	A
$R_{DS(ON)_Typ}$(@V_{GS}=10V	4	m :
$R_{DS(ON)_Typ}$(@V_{GS}=4.5V	6.2	m :

RoHS

PDFN5X6-8L

Pin Assignment



Schematic Diagram

Ordering Information

Device	Marking	MSL	Form	Package	Reel(pcs)	Per Carton (pcs)
JMSL04048G4LQ-13	SL040484LQ	1	Tape&Reel	PDFN5x6-8L	5000	50000

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

Symbol	Parameter		Value	Unit
V_{DS}	Drain-to-Source Voltage		40	V
V_{GS}	Gate-to-Source Voltage		±20	V
I_D	Continuous Drain Current	T_C = 25°C	94	A
		T_C = 100°C	66	
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	75	W
		T_C = 100°C	38	
T_J $_{STG}$	Junction & Storage Temperature Range		-55 to 175	°C

Thermal Characteristics

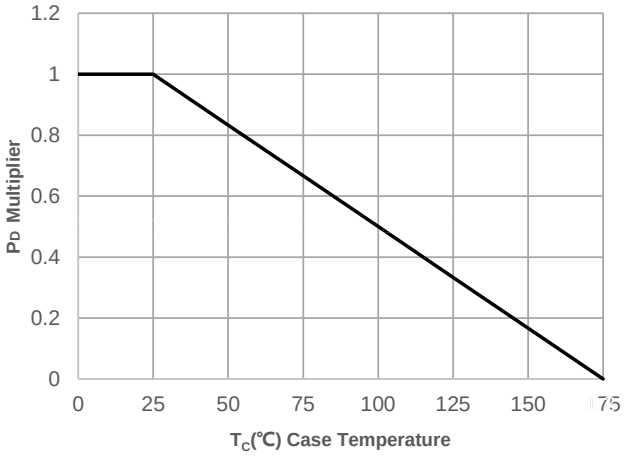
Symbol	Parameter	Max	Unit
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient(3)	42	°C/W
$R_{\theta JC}$	Thermal Resistance, Junction to Case	2	

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

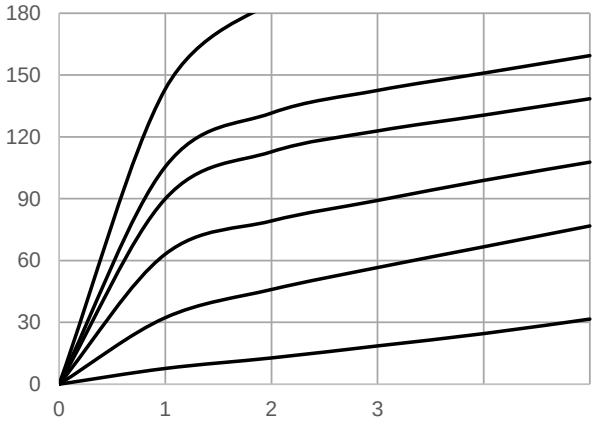
Symbol	Min.	Typ.	Max.	Unit
Off Characteristics				
$V_{(BR)DSS}$	40	-	-	V
I_{DSS}	-	-	1.0	P
I_{GSS}	-	-	±100	
$V_{GS(th)}$	1.0	1.8	2.5	V
	-	4	4.8	m :
	-	6.2	7.4	m :
R_g	-	1.6	-	:
C_{iss}	-	845	1150	pF
C_{oss}	-	383	520	pF
C_{rss}	-	20	50	pF
Q				

Typical Performance Characteristics

Figure 1: Power De-rating



Typical Performance Characteristics



Typical Performance Characteristics

Figure 11: Normalized Breakdown Voltage vs. Junction Temperature

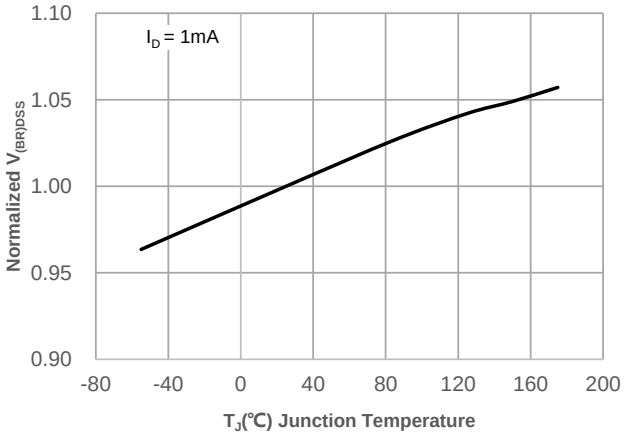


Figure 12: Normalized on Resistance vs. Junction Temperature

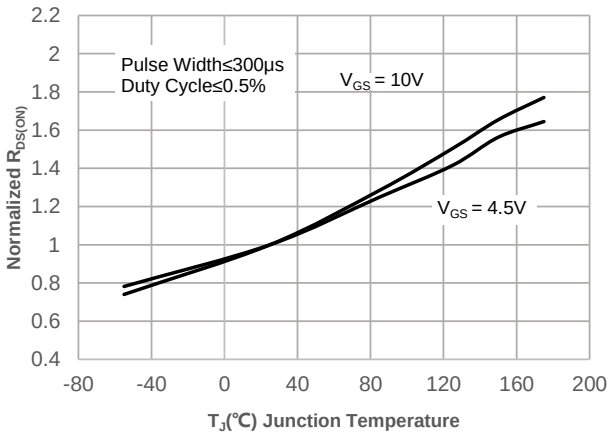
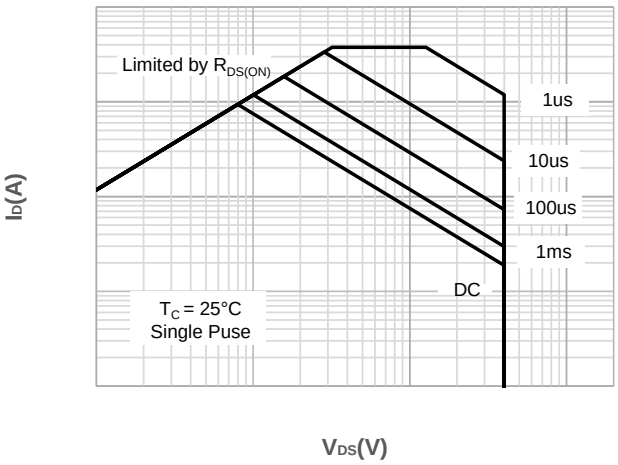


Figure 15: Maximum Safe Operating Area



Test Circuit



Figure 1: Gate Charge Test Circuit & Waveform

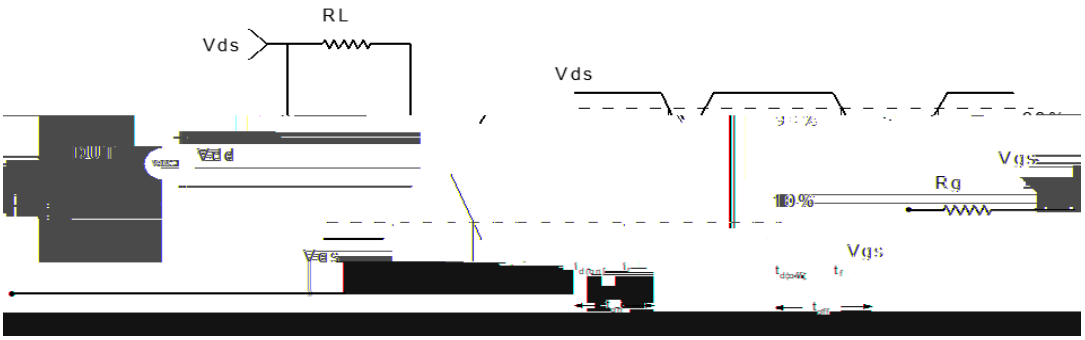


Figure 2: Resistive Switching Test Circuit & Waveform

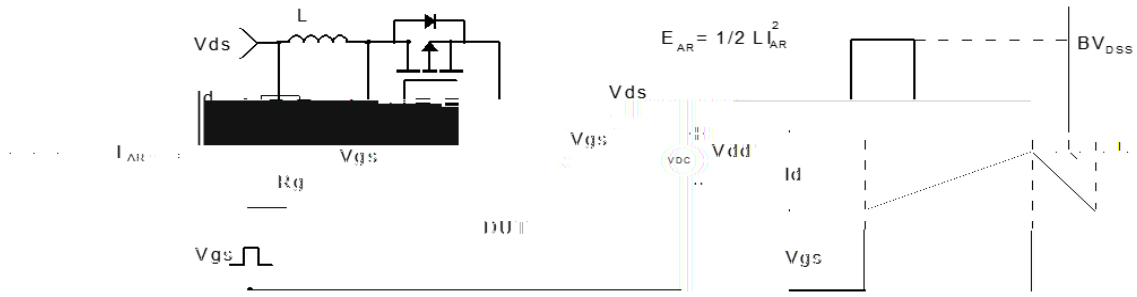


Figure 3: Unclamped Inductive Switching Test Circuit& Waveform

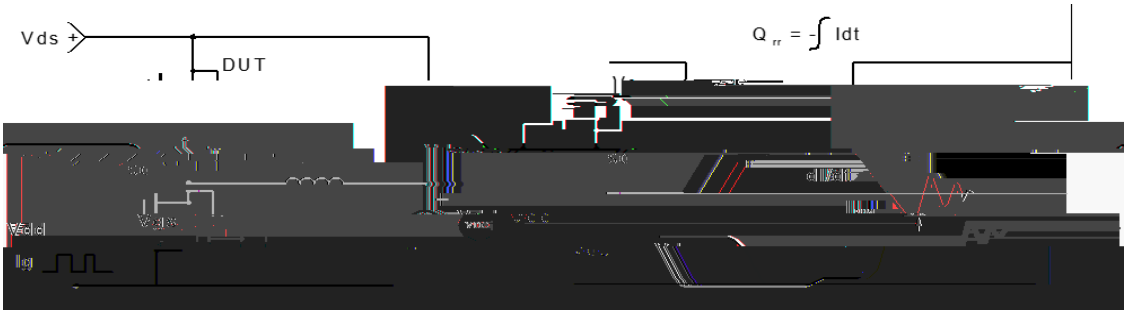


Figure 4: Diode Recovery Test Circuit & Waveform

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Package Mechanical Data(PDFN5X6-8L)

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