



JMSH0606PG

Features

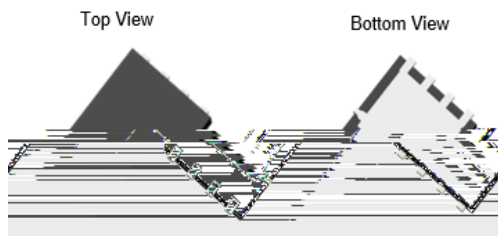
Excellent $R_{DS(ON)}$ and Low Gate Charge
100% UIS Tested
100% V_{DS} Tested
Halogen-free; RoHS-compliant

Applications

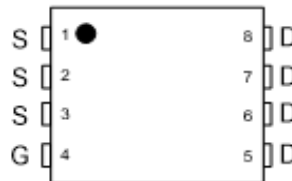
Load Switch
PWM Application
Power Management

Product Summary

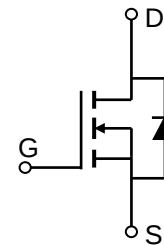
Parameters	Value	Unit
V_{DSS}	60	V
$V_{GS(th_Typ)}$	2.9	V
$I_D(@V_{GS}=10V)$	114	A
$R_{DS(ON_Typ)}(@V_{GS}=10V)$	4.5	$m\Omega$



PDFN5X6-8L



Pin Assignment



Schematic Diagram

Ordering Information

Device	Marking	MSL	Form	Package	Reel(pcs)	Per Carton (pcs)
JMSH0606PG-13	SH0606P	1	Tape&Reel	PDFN5x6-8L	5000	50000

Absolute Maximum Ratings (@ $T_C = 25^\circ\text{C}$ unless otherwise specified)

Symbol	Parameter	Value	Unit
V_{DS}	Drain-to-Source Voltage	60	V
V_{GS}	Gate-to-Source Voltage	± 20	V
I_D	Continuous Drain Current	$T_C = 25^\circ\text{C}$: 114 $T_C = 100^\circ\text{C}$: 72	A
I_{DM}	Pulsed Drain Current ⁽¹⁾	Refer to Fig.4	A
E_{AS}	Single Pulsed Avalanche Energy ⁽²⁾	188	mJ
P_D	Power Dissipation	$T_C = 25^\circ\text{C}$: 104 $T_C = 100^\circ\text{C}$: 42	W
T_{J_STG}	Junction & Storage Temperature Range	-55 to 150	$^\circ\text{C}$

Thermal Characteristics

Symbol	Parameter	Max	Unit
R	Thermal Resistance, Junction to Ambient ⁽³⁾	43	$^\circ\text{C/W}$
R	Thermal Resistance, Junction to Case	1.2	

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

Symbol	Conditions	Min.	Typ.	Max.	Unit
Off Characteristics					
$V_{(BR)DSS}$		60	-	-	V
I_{DSS}		-	-	1.0	μ
I_{GS-}					

Typical Performance Characteristics

Typical Performance Characteristics

Figure 5: Output Characteristics

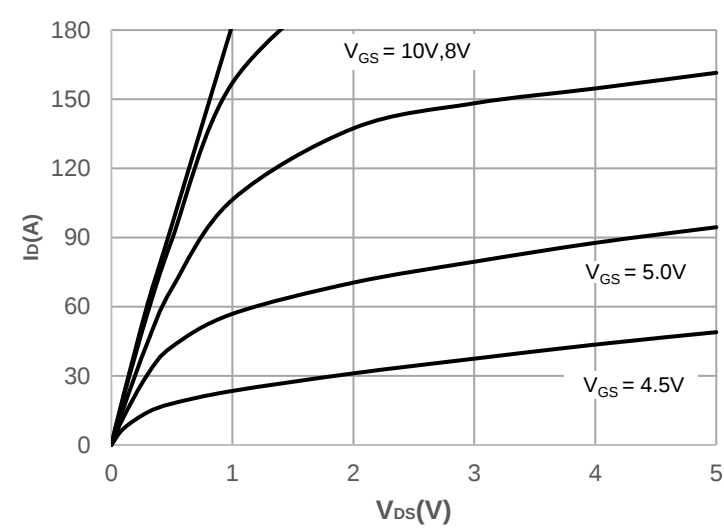


Figure 6: Typical Transfer Characteristics

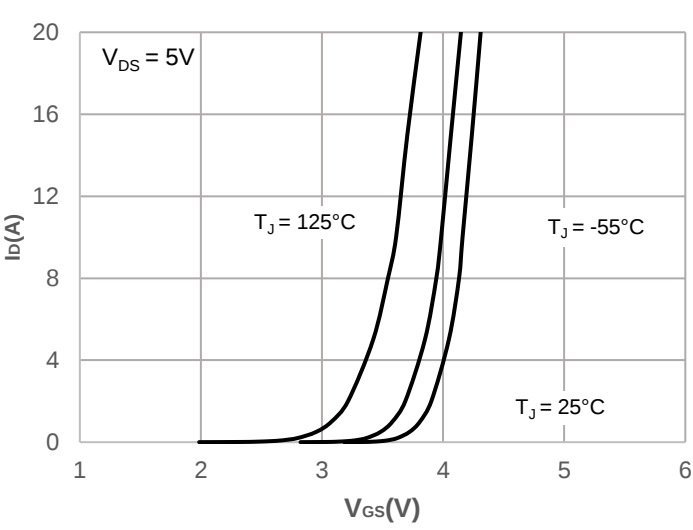


Figure 7: On-resistance vs. Drain Current

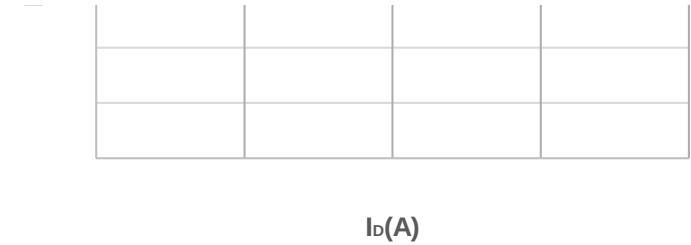


Figure 8: Body Diode Characteristics

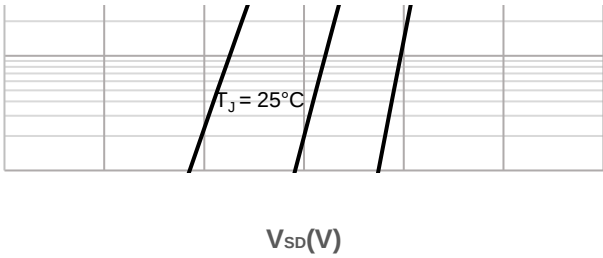
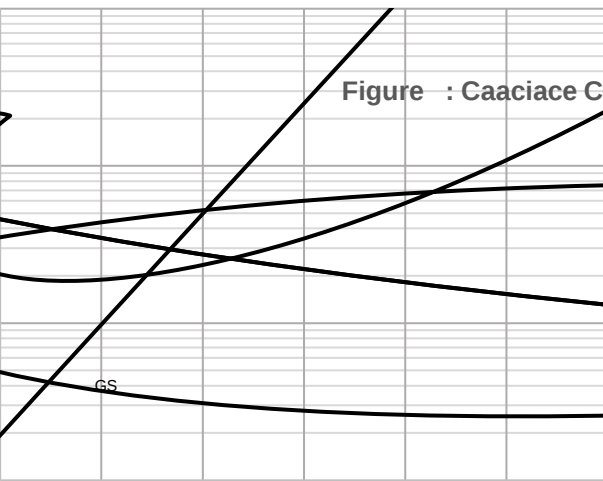
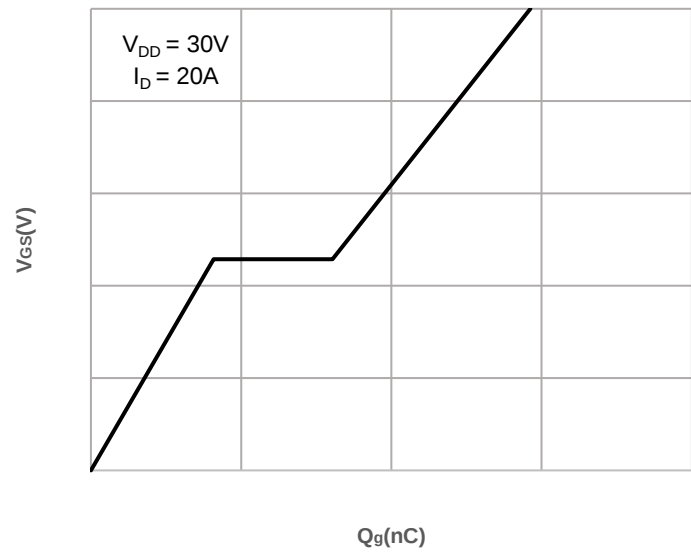
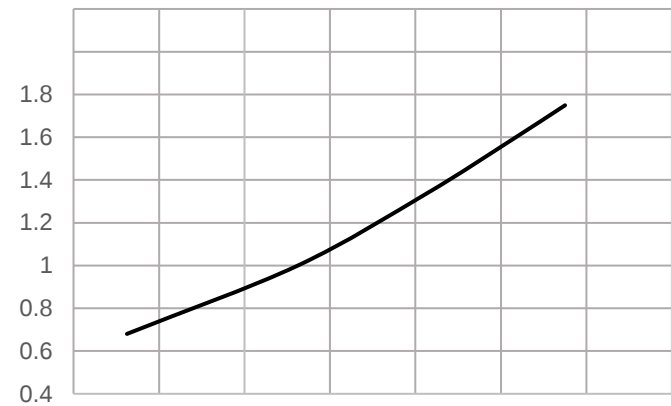
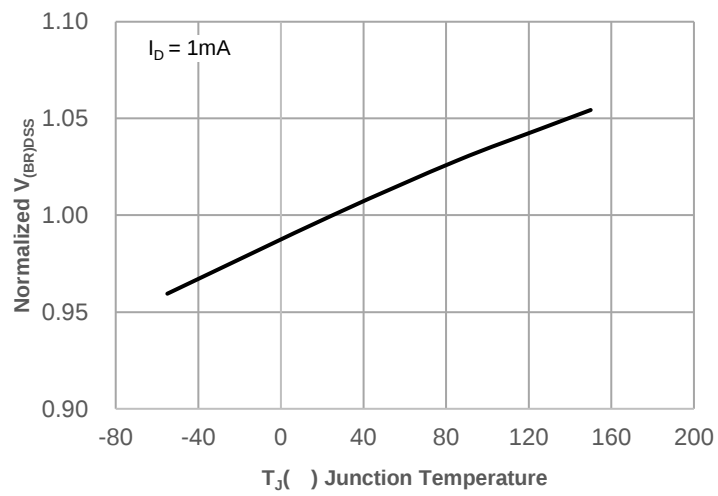


Figure 9: Gate Charge Characteristics



Typical Performance Characteristics

Figure 11: Normalized Breakdown voltage vs. Junction Temperature



Test Circuit



Figure 1: Gate Charge Test Circuit & Waveform

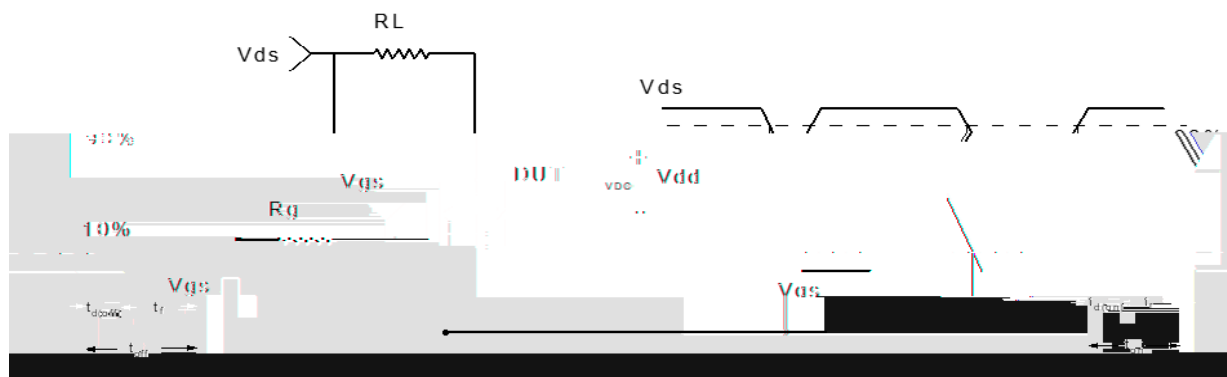


Figure 2: Resistive Switching Test Circuit & Waveform

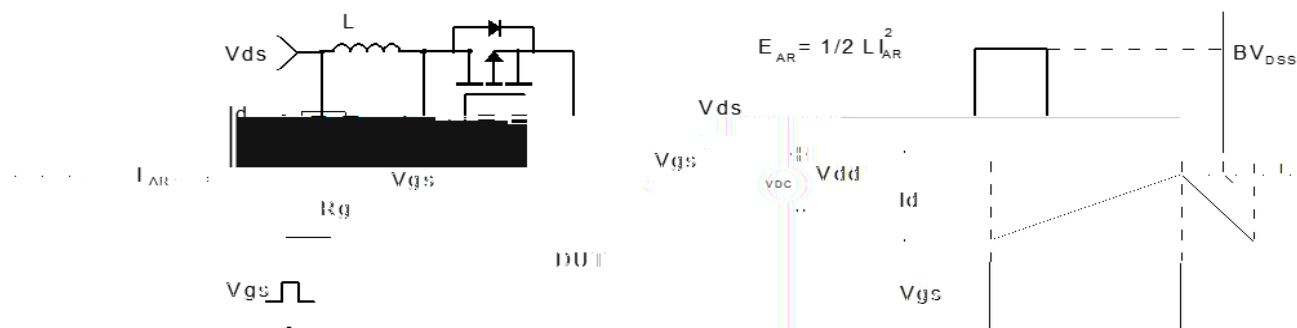


Figure 3: Unclamped Inductive Switching Test Circuit & Waveform

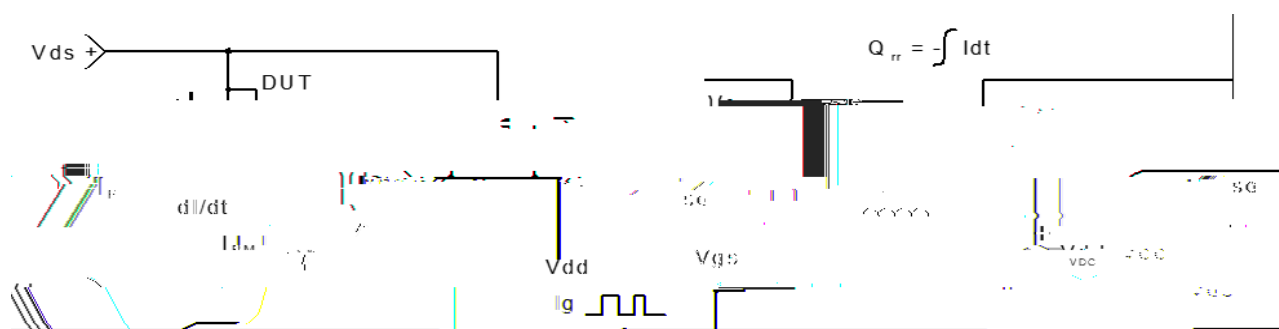


Figure 4: Diode Recovery Test Circuit & Waveform

