



# JMSH0606PG

## Features

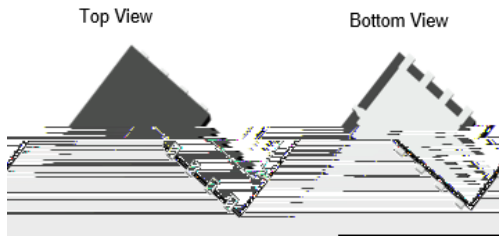
- Excellent  $R_{DS(ON)}$  and Low Gate Charge
- 100% UIS Tested
- 100%  $V_{ds}$  Tested
- Halogen-free; RoHS-compliant

## Product Summary

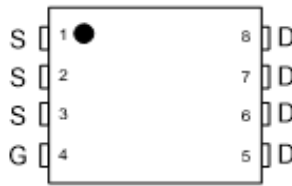
Parameters	Value	Unit
$V_{DSS}$	60	V
$V_{GS(th\_Typ)}$	2.9	V
$I_D(@V_{GS}=10V)$	114	A
$R_{DS(ON)\_Typ}(@V_{GS}=10V)$	4.5	$m\Omega$

## Applications

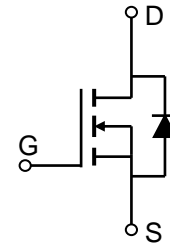
- Load Switch
- PWM Application
- Power Management



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 (@ $T_C = 25^\circ C$ unless otherwise specified)

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

## Thermal Characteristics

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





## Typical Performance Characteristics

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## Typical Performance Characteristics

Figure 5: Output Characteristics

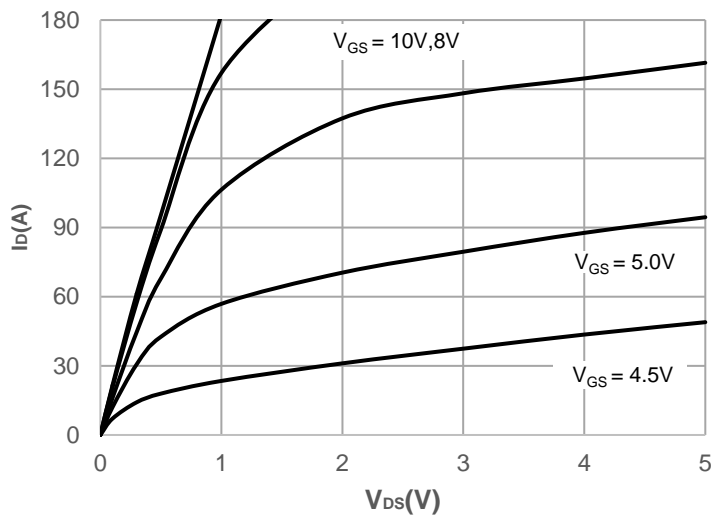


Figure 7: On-resistance vs. Drain Current

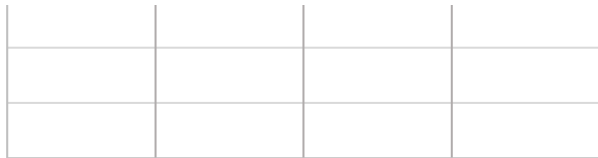


Figure 9: Gate Charge Characteristics

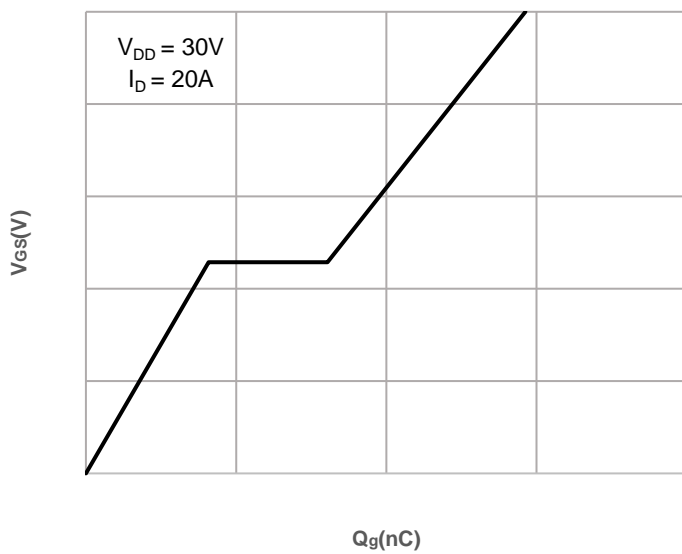


Figure 6: Typical Transfer Characteristics

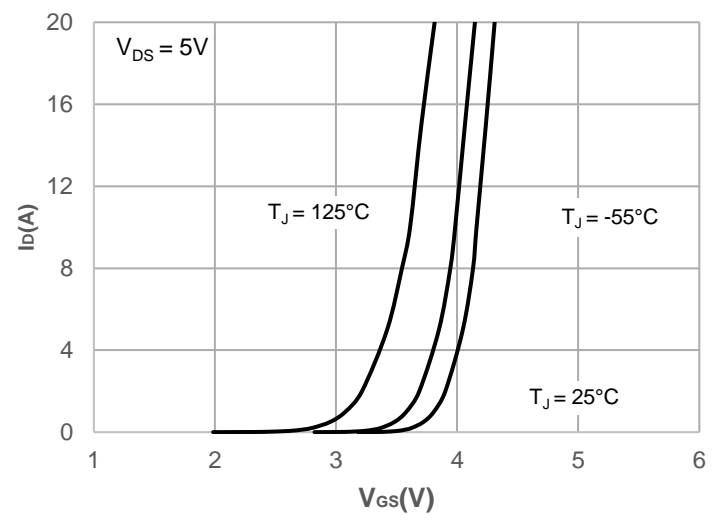
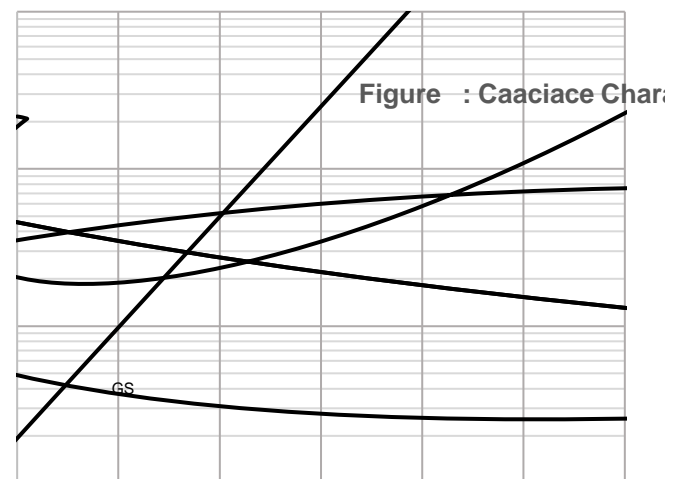
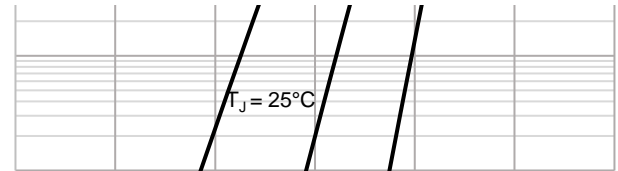
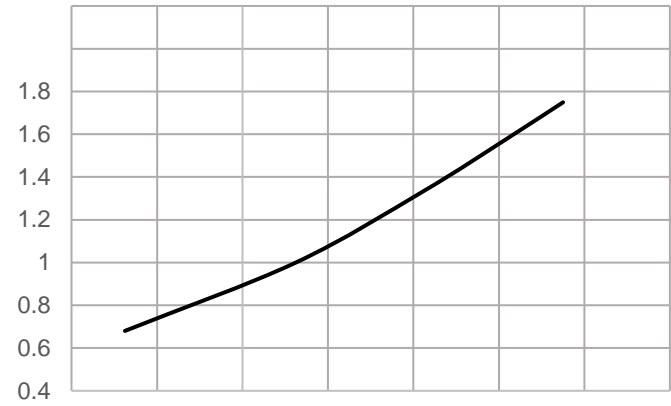
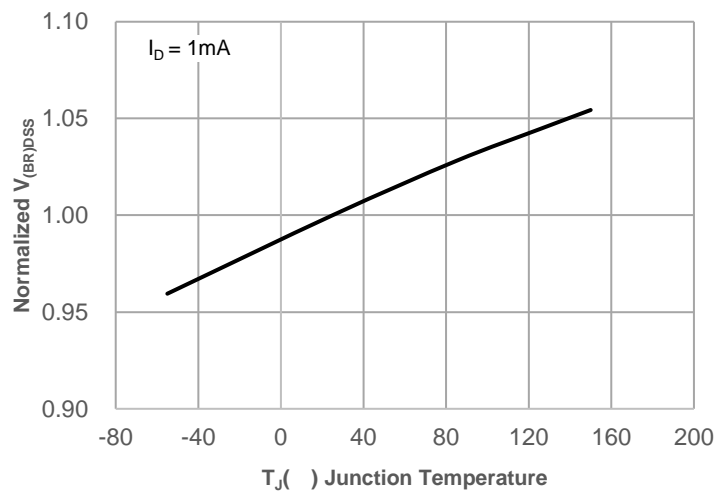


Figure 8: Body Diode Characteristics



## Typical Performance Characteristics

Figure 11: Normalized Breakdown voltage vs. Junction Temperature



## Test Circuit



Figure 1: Gate Charge Test Circuit & Waveform

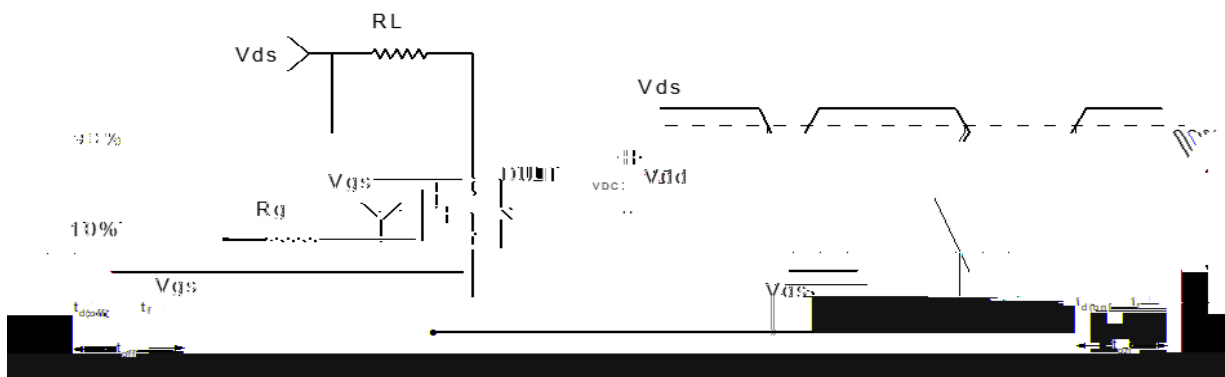


Figure 2: Resistive Switching Test Circuit & Waveform

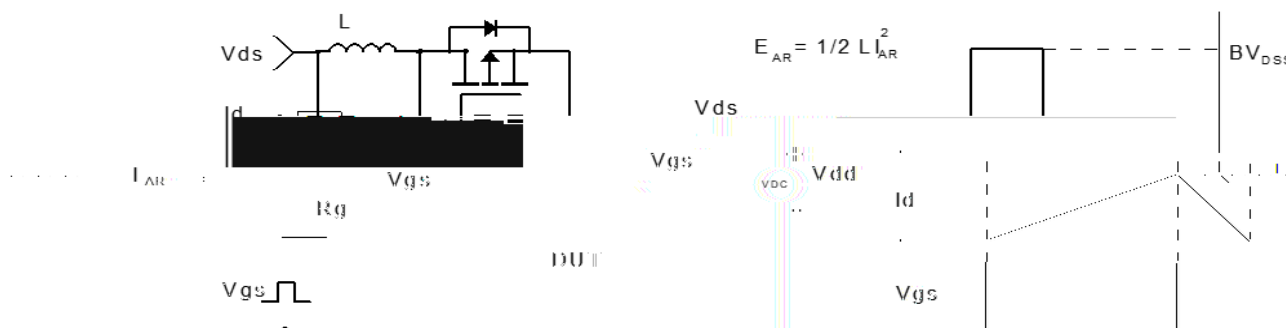


Figure 3: Unclamped Inductive Switching Test Circuit & Waveform



Figure 4: Diode Recovery Test Circuit & Waveform

