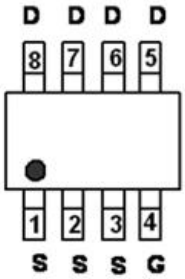
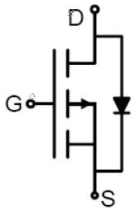
V_{DSS}	-40V
R_{DS}(on)	46mΩ (typ.)
I_D	-4.2A





Advanced MOSFET process technology
Special designed for PWM, load switching and general purpose applications
Ultra low on-resistance with low gate charge
Fast switching and reverse body recovery
150 operating temperature

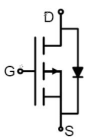
It utilizes the latest processing techniques to achieve the high cell density and reduces the on-resistance with high repetitive avalanche rating. These features combine to make this design an extremely efficient and reliable device for use in power switching application and a wide variety of other applications.

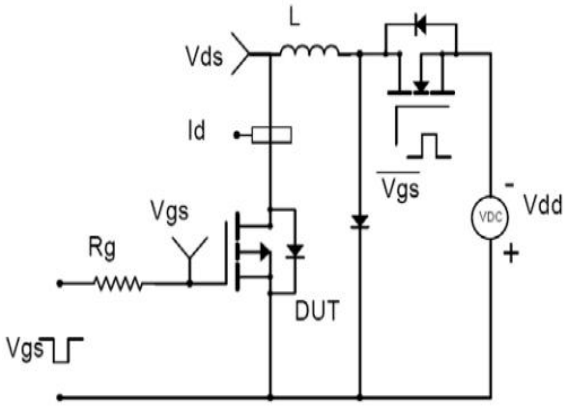
I_D @ T_A = 25°C	Continuous Drain Current	-4.2	A
I_D @ T_A= 100°C	Continuous Drain Current	-2.7	
I_{DM}	Pulsed Drain Current	-16.8	
P_D @T_A = 25°C	Power Dissipation	1.83	W
V_{DS}	Drain-Source Voltage	-40	V
V_{GS}	Gate-to-Source Voltage	± 20	V
T_J T_{STG}	Operating Junction and Storage Temperature Range	-55 to +150	°C

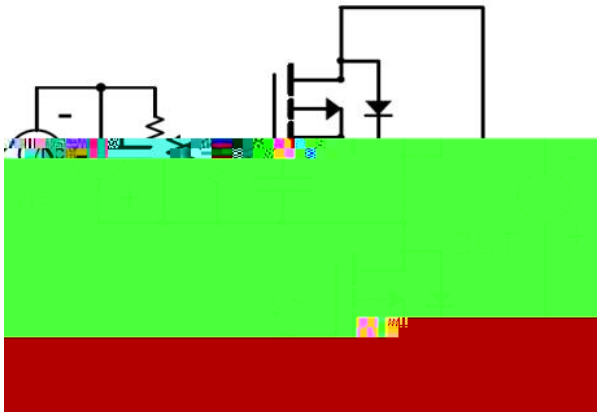
$R_{\theta JA}$	Junction-to-ambient ( )	—	68	°C/W

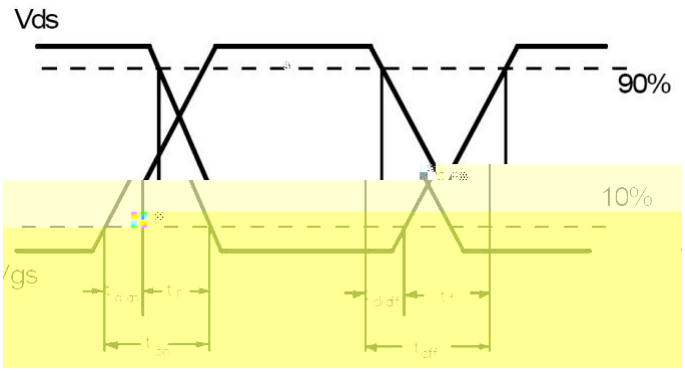
@T_A=25°C unless otherwise specified

$V_{(BR)DSS}$	Drain-to-Source breakdown voltage	-40	—	—	V	V_{GS} = 0V, I_D = -250μA
$R_{DS(on)}$	Static Drain-to-Source on-resistance	—	46	60	mΩ	V_{GS}=-10V,I_D = -4A
		—	59	78		V_{GS}=-4.5V,I_D = -3A
$V_{GS(th)}$	Gate threshold voltage	-1	—	-2.5	V	V_{DS} = V_{GS}, I_D = -250μA
I_{DSS}	Drain-to-Source leakage current	—	—	-1	μA	V_{DS} = -40V,V_{GS} = 0V
I_{GSS}	Gate-to-Source forward leakage	—	—	100	nA	V_{GS} = 20V
		—	—	-100		V_{GS} = -20V
Q_g	Total gate charge	—	12	—	nC	I_D = -4A,
Q_{gs}	Gate-to-Source charge	—	3.5	—		V_{DS}=-20V,
Q_{gd}	Gate-to-Drain("Miller") charge	—	2.8	—		V_{GS} = -10V
$t_{d(on)}$	Turn-on delay time	—	7.6	—	ns	V_{GS}=-10V, V_{DS} =-20V, R_{GEN}=3Ω,R_L=5Ω
t_r	Rise time	—	3.6	—		
$t_{d(off)}$	Turn-Off delay time	—	19	—		
t_f	Fall time	—	4.6	—		
C_{iss}	Input capacitance	—	905	—	pF	V_{GS} = 0V
C_{oss}	Output capacitance	—	60	—		V_{DS} =-20V
C_{rss}	Reverse transfer capacitance	—	46	—		f = 1MHz

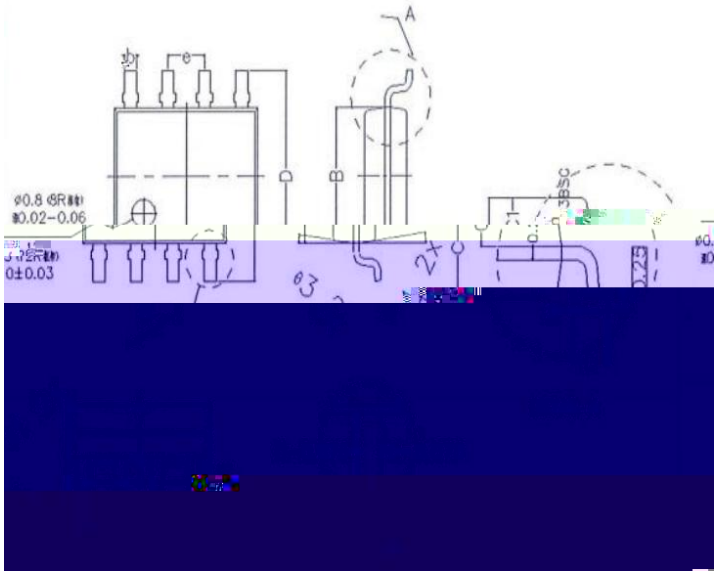
I_S	Continuous Source Current (Body Diode)	—	—	-4.2	A	MOSFET symbol showing the integral reverse p-n junction diode 
I_{SM}	Pulsed Source Current (Body Diode)	—	—	-16.8	A	
V_{SD}	Diode Forward Voltage	—	—	-1.2	V	I_S=-4A, V_{GS}=0V







Calculated continuous current based on maximum allowable junction temperature.
Repetitive rating; pulse width limited by max. junction temperature.
The power dissipation P_D is based on max. junction temperature, using junction-to-case thermal resistance.
The value of $R_{\theta JA}$ is measured with the device mounted on 1 in 2 FR-4 board with 2oz. Copper, in a still air environment with T_A =25°C



COMMON DIMENSIONS (UNITS OF MEASURE IS mm)			
	MIN	NORMAL	MAX
A	4.800	4.900	5.000
B	3.800	3.900	4.000
C	1.350	1.450	1.550
C1			

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