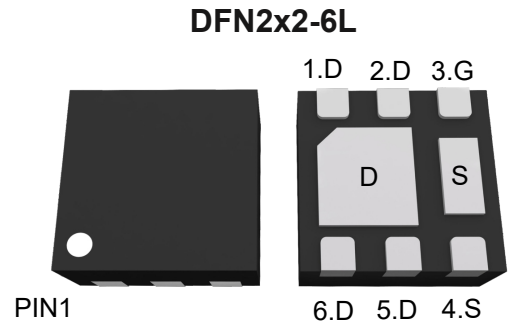


Features

- Low gate charge and $R_{DS(ON)}$
- $V_{DS} = 60V, I_D = 15A$
 $R_{DS(on)} < 33m\Omega @ V_{GS} = 10V$

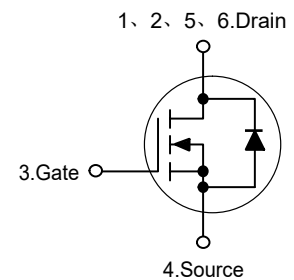


Marking Code: 15N60

Applications

- Load switch
- PWM application

Schematic Diagram



Absolute Maximum Ratings

Ratings at 25°C Case temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	60	V
Gate-Source Voltage	V_{GS}	± 20	V
Drain Current-Continuous	I_D	15	A
Drain Current-Pulsed ^{Note1}	I_{DM}	60	A
Maximum Power Dissipation	P_D	5	W
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

Thermal Characteristics

Maximum Junction-to-Case ^{Note2}	$R_{\theta JC}$	25	°C/W
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PJM15N60DF

N-Channel Enhancement Mode Power MOSFET

Electrical Characteristics

(T_J=25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Static Characteristics						
Drain-Source Breakdown Voltage	V _{(BR)DSS}	V _{GS} =0V, I _D =250μA	60	--	--	V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =60V, V _{GS} =0V	--	--	1	μA
Gate-Body Leakage Current	I _{GSS}	V _{GS} =±20V, V _{DS} =0V	--	--	±100	nA
Gate Threshold Voltage ^{Note3}	V _{GS(th)}	V _{DS} =V _{GS} , I _D =250μA	1.0	--	2.5	V
Drain-Source On-Resistance ^{Note3}	R _{DS(on)}	V _{GS} =10V, I _D =10A	--	--	33	mΩ
		V _{GS} =4.5V, I _D =5A	--	--	45	mΩ
Dynamic Characteristics						
Input Capacitance	C _{iss}	V _{DS} =25V, V _{GS} =0V, f=1MHz	--	1148	--	pF
Output Capacitance	C _{oss}		--	58.5	--	pF
Reverse Transfer Capacitance	C _{rss}		--	49.4	--	pF
Switching Characteristics						
Turn-on Delay Time	t _{d(on)}	V _{DS} =30V, I _D =20A V _{GS} =10V, R _{GEN} =1.8Ω	--	7.6	--	nS
Turn-on Rise Time	t _r		--	20	--	nS
Turn-off Delay Time	t _{d(off)}		--	15	--	nS
Turn-off Fall Time	t _f		--	24	--	nS
Total Gate Charge	Q _g	V _{DS} =30V, I _D =10A, V _{GS} =10V	--	20.3	--	nC
Gate-Source Charge	Q _{gs}		--	3.7	--	nC
Gate-Drain Charge	Q _{gd}		--	5.3	--	nC
Source-Drain Diode Characteristics						
Diode Forward Voltage ^{Note3}	V _{SD}	V _{GS} =0V, I _S =15A	--	--	1.2	V
Diode Forward Current ^{Note2}	I _S		--	--	15	A

Note: 1. Repetitive Rating: Pulse width limited by maximum junction temperature.

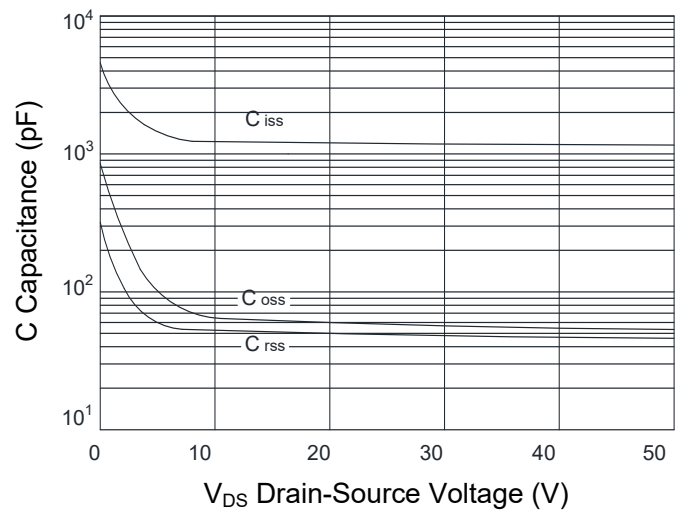
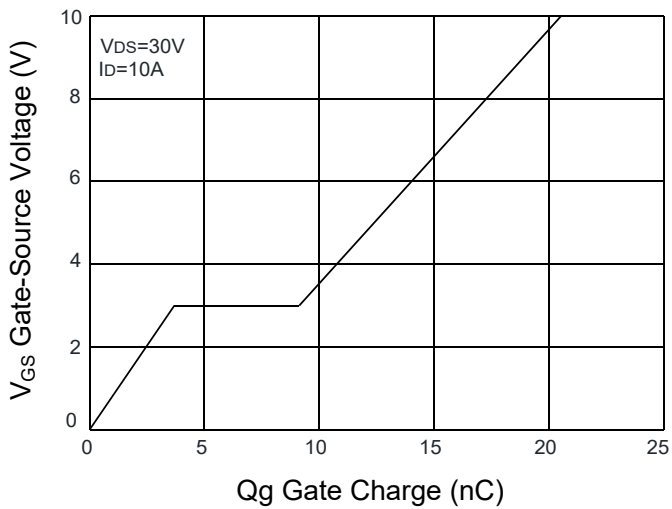
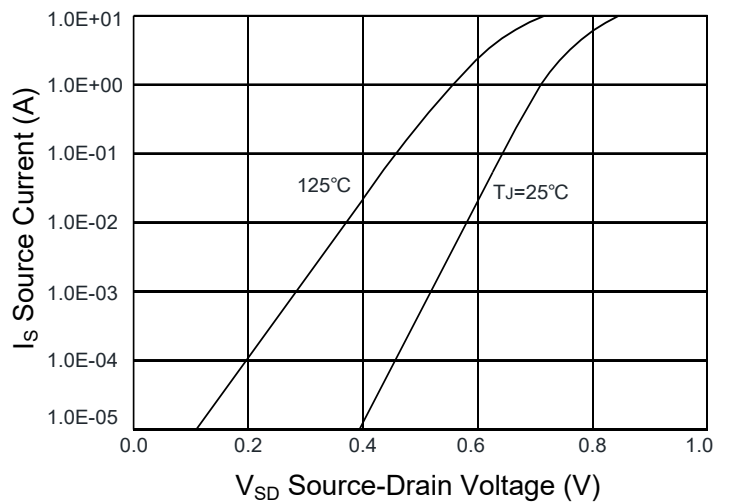
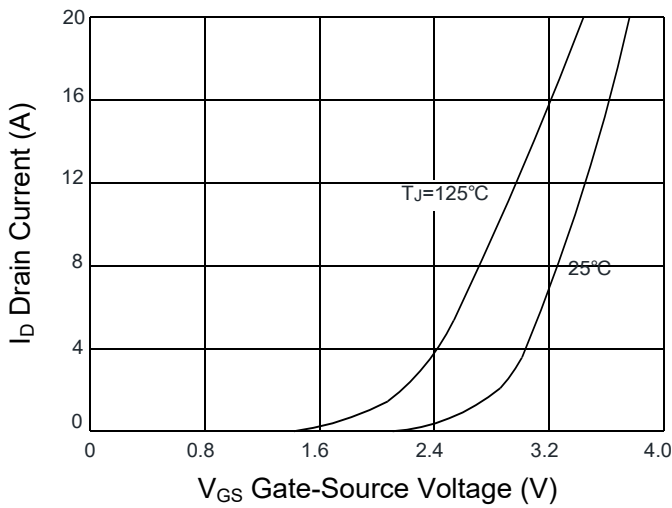
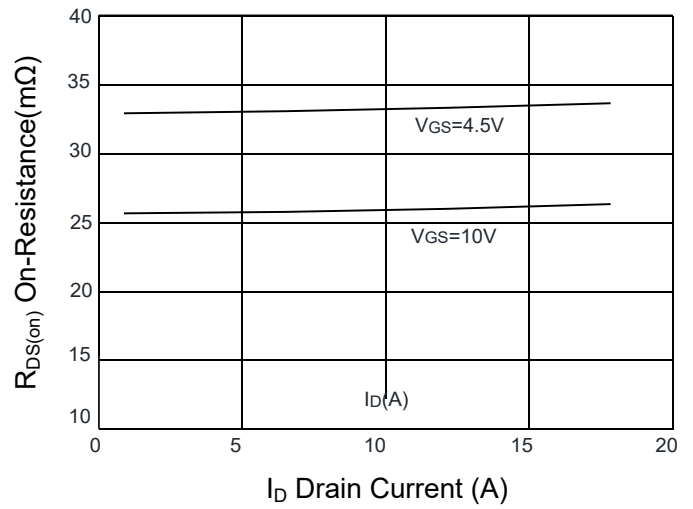
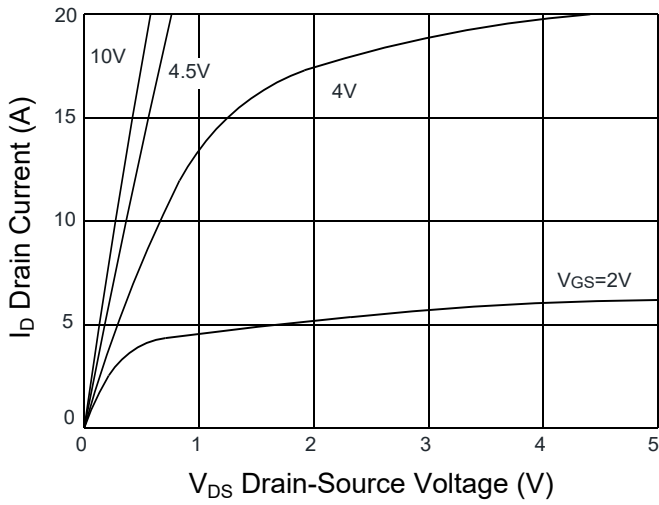
2. Pulse Test: Pulse width≤300μs, duty cycle≤0.5%.



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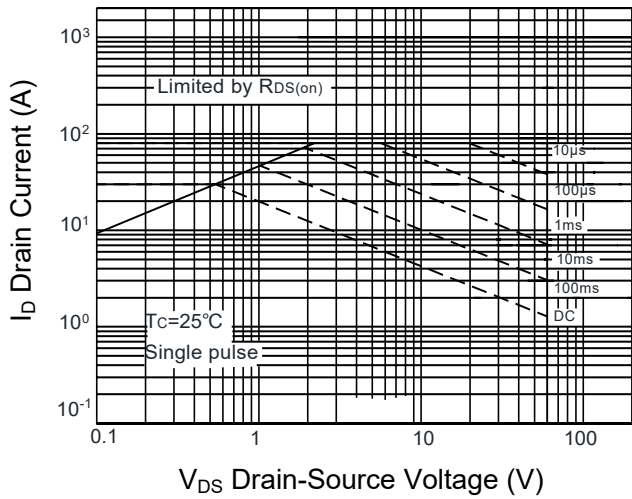
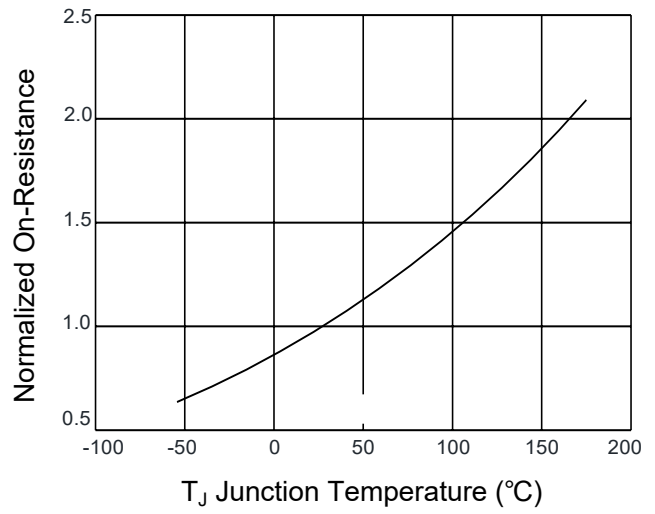
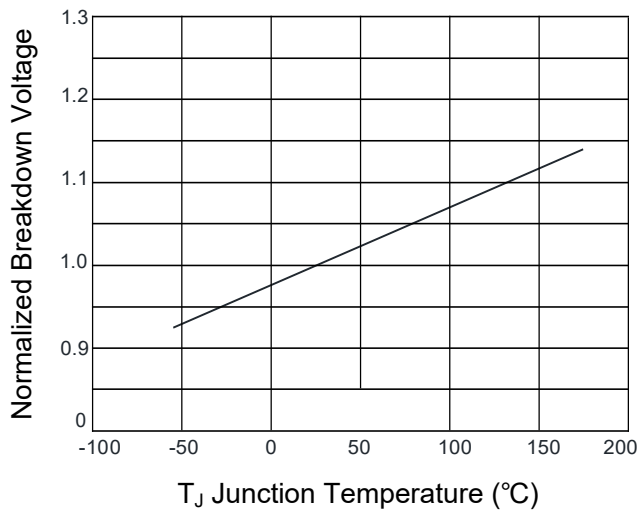
Typical Characteristic Curves





PJM15N60DF

N-Channel Enhancement Mode Power MOSFET





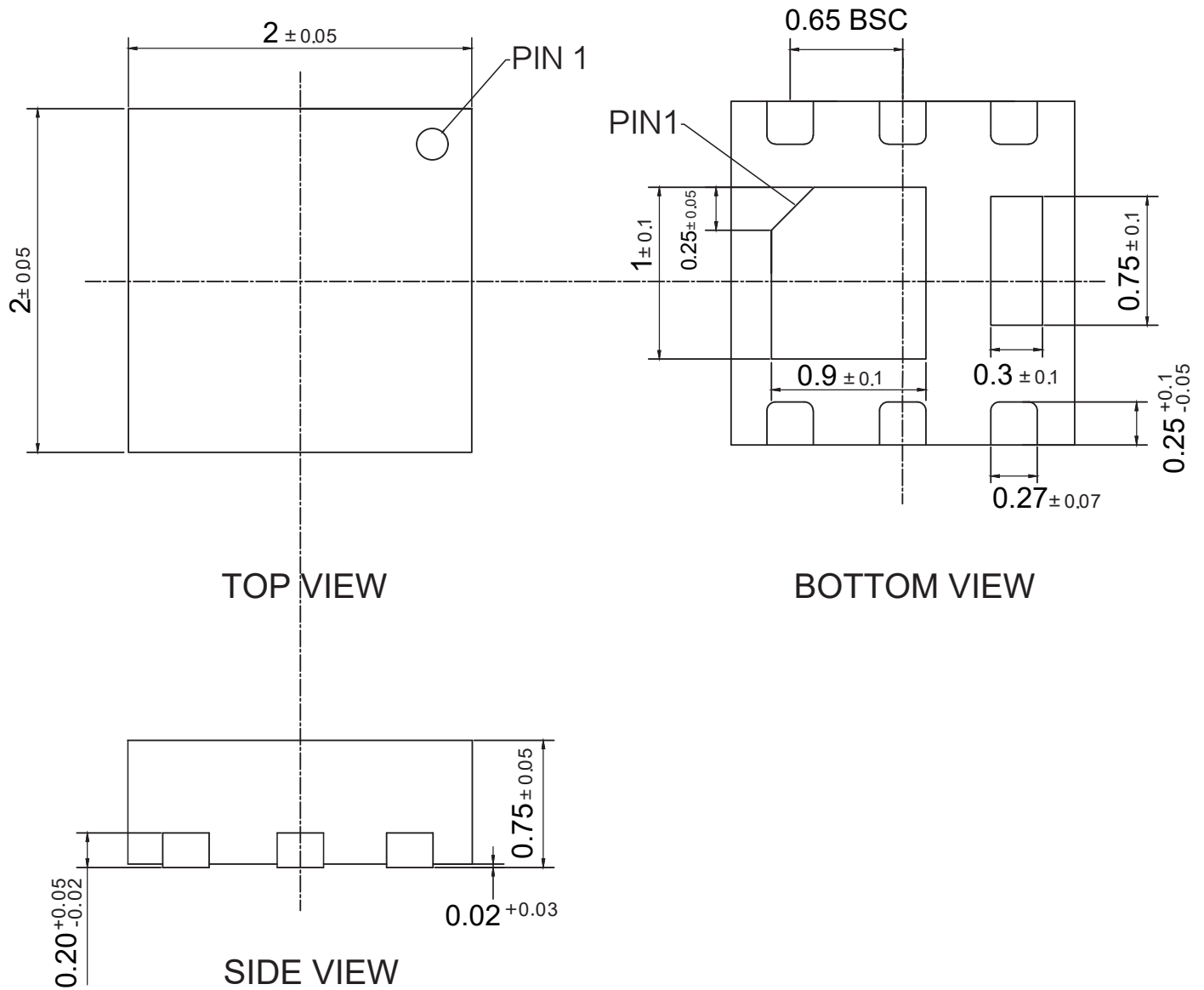
PJM15N60DF

N-Channel Enhancement Mode Power MOSFET

Package Outline

DFN2x2-6L-0001

Dimensions in mm



Ordering Information

Device	Package	Shipping
PJM15N60DF	DFN2x2A-6L	3,000PCS/Reel&7inches