



PJM30DN30DL

Dual N-Channel Enhancement Mode Power MOSFET

Product Summary

- $V_{DS} = 30V, I_D = 28A$
- $R_{DS(on)} < 9.5m\Omega @ V_{GS} = 10V$
- $R_{DS(on)} < 14m\Omega @ V_{GS} = 4.5V$

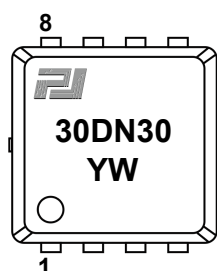
Features

- Advanced Trench Technology
- 100% Avalanche Tested
- RoHS Compliant
- Halogen and Antimony Free
- Moisture Sensitivity Level 3

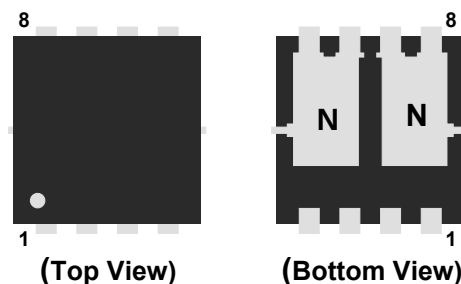
Application

- Load Switch
- Battery Protection
- Uninterruptible Power Supply

Marking Code

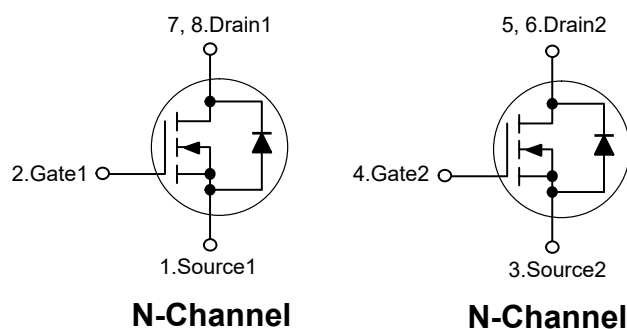


PDFN3x3A-8L



Pin	Description	Pin	Description
1	Source1	4	Gate2
2	Gate1	5,6	Drain2
3	Source2	7,8	Drain1

Schematic Diagram



Absolute Maximum Ratings

Ratings at 25°C case temperature unless otherwise specified.

Parameter		Symbol	Value	Unit
Drain-Source Voltage		V_{DS}	30	V
Gate-Source Voltage		V_{GS}	± 20	V
Drain Current-Continuous	$T_C = 25^\circ C$	I_D	28	A
	$T_C = 100^\circ C$		16	
Drain Current-Pulsed ^{Note1}		I_{DM}	100	A
Maximum Power Dissipation		P_D	10	W
Single Pulse Avalanche Energy ^{Note2}		E_{AS}	39	mJ
Junction Temperature		T_J	150	°C
Storage Temperature Range		T_{STG}	-55 to +150	°C

Thermal Characteristics

Thermal Resistance, Junction-to-Case	$R_{\theta JC}$	12.5	°C/W
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Electrical Characteristics

(T_C=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	30	--	--	V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =30V, 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	1.5	2.5	V
Drain-Source On-Resistance ^{Note3}	R _{DS(on)}	V _{GS} =10V, I _D =15A	--	--	9.5	mΩ
		V _{GS} =4.5V, I _D =10A	--	--	14	mΩ
Dynamic Characteristics						
Input Capacitance	C _{iss}	V _{DS} =15V, V _{GS} =0V, f=1MHz	--	1310	--	pF
Output Capacitance	C _{oss}		--	180	--	pF
Reverse Transfer Capacitance	C _{rss}		--	136	--	pF
Total Gate Charge	Q _g	V _{DS} =15V, I _D =20A , V _{GS} =10V	--	23	--	nC
Gate-Source Charge	Q _{gs}		--	4.5	--	nC
Gate-Drain Charge	Q _{gd}		--	5.5	--	nC
Switching Characteristics						
Turn-on Delay Time	t _{d(on)}	V _{DD} =15V, I _D =15A, V _{GS} =10V, R _{GEN} =3Ω	--	7	--	nS
Turn-on Rise Time	t _r		--	15	--	nS
Turn-off Delay Time	t _{d(off)}		--	25	--	nS
Turn-off Fall Time	t _f		--	6	--	nS
Source-Drain Diode Characteristics						
Diode Forward Voltage ^{Note3}	V _{SD}	V _{GS} =0V, I _S =15A	--	--	1.2	V
Diode Forward Current	I _S		--	--	28	A

Note :

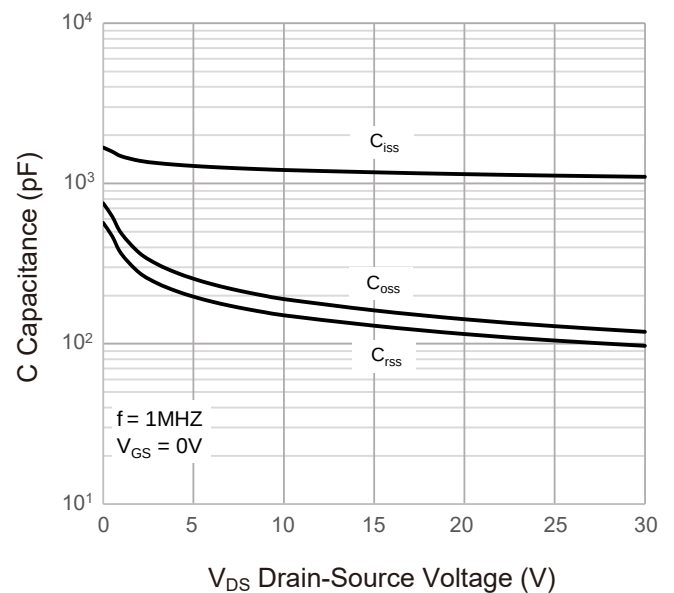
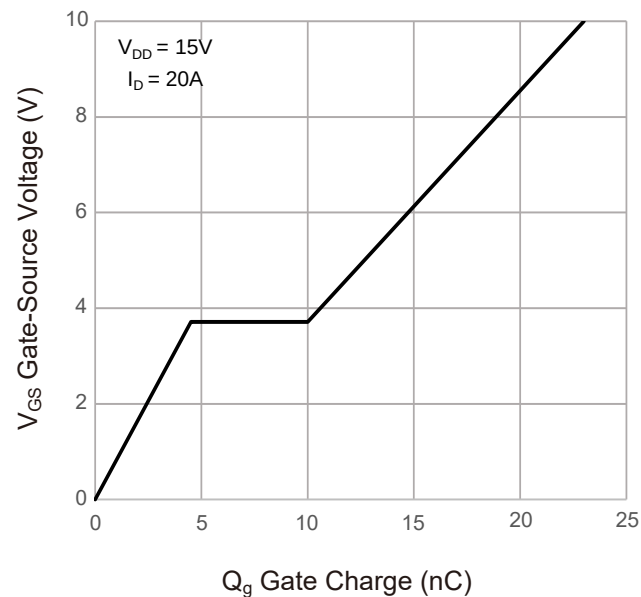
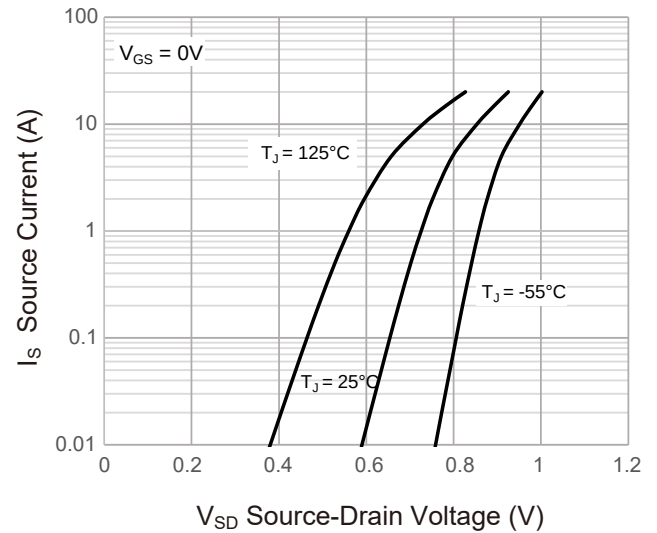
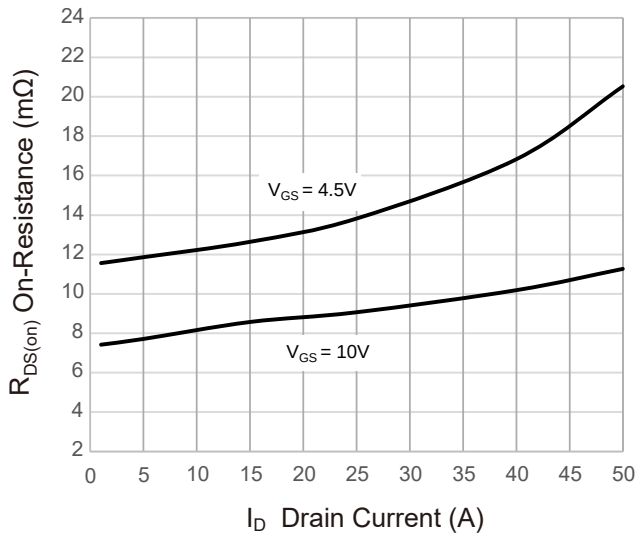
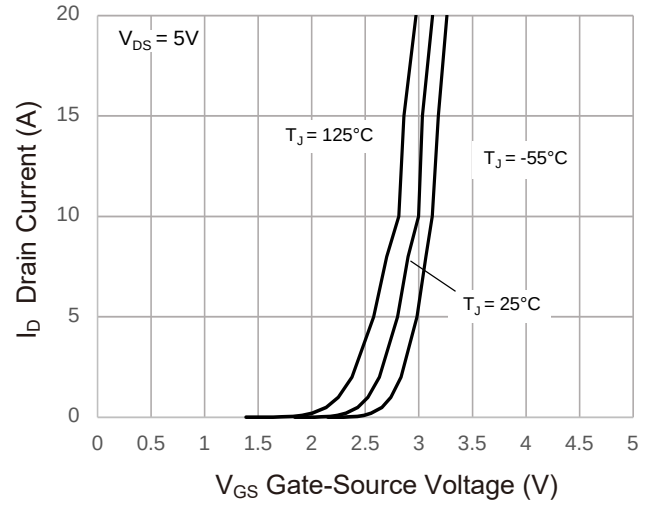
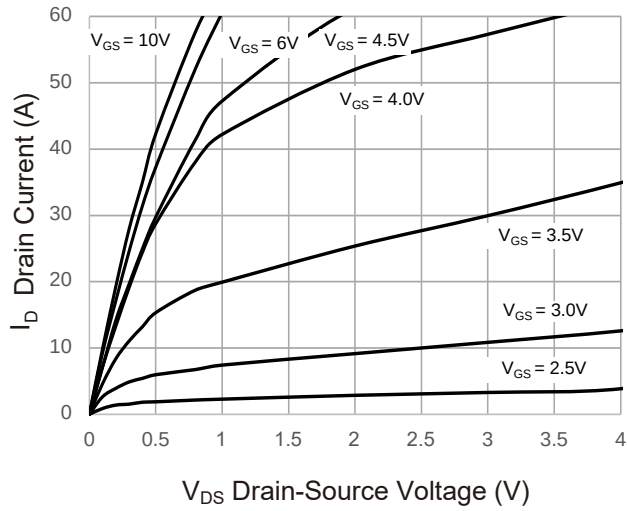
1. Repetitive Rating: Pulse Width Limited by Maximum Junction Temperature
2. EAS Condition: T_J=25°C, V_{DD}=15V, V_G=10V, L=0.5mH, R_G=25Ω, I_{AS}=12.5A.
3. The data tested by pulsed , pulse width ≤ 300us , duty cycle ≤ 2%



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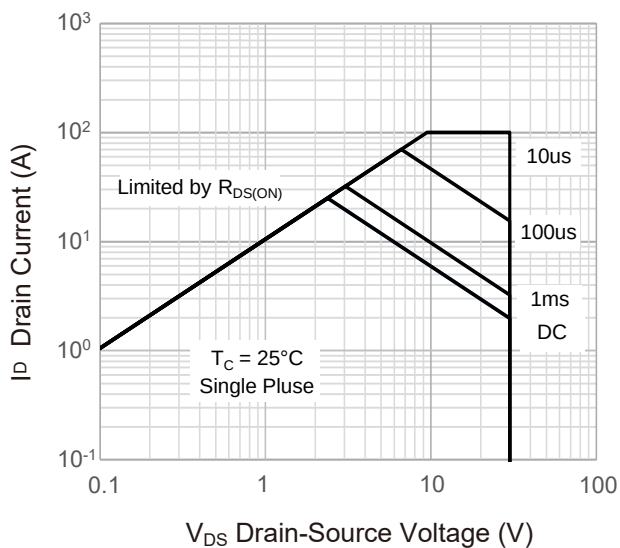
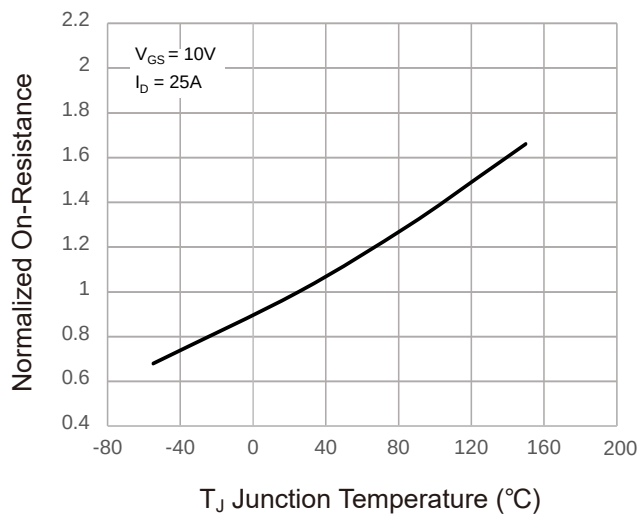
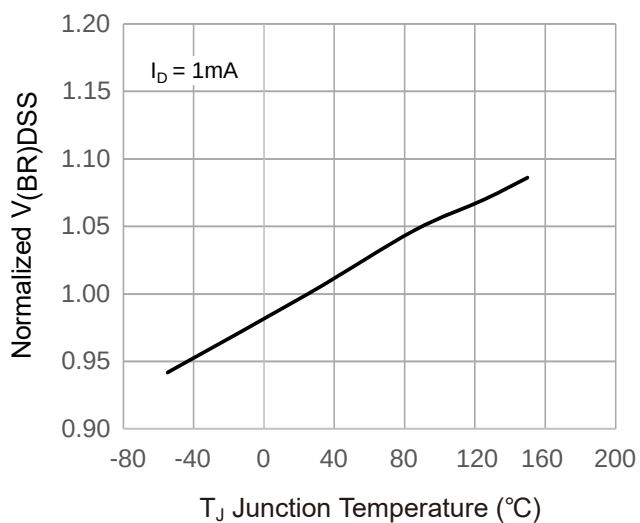
Typical Characteristic Curves





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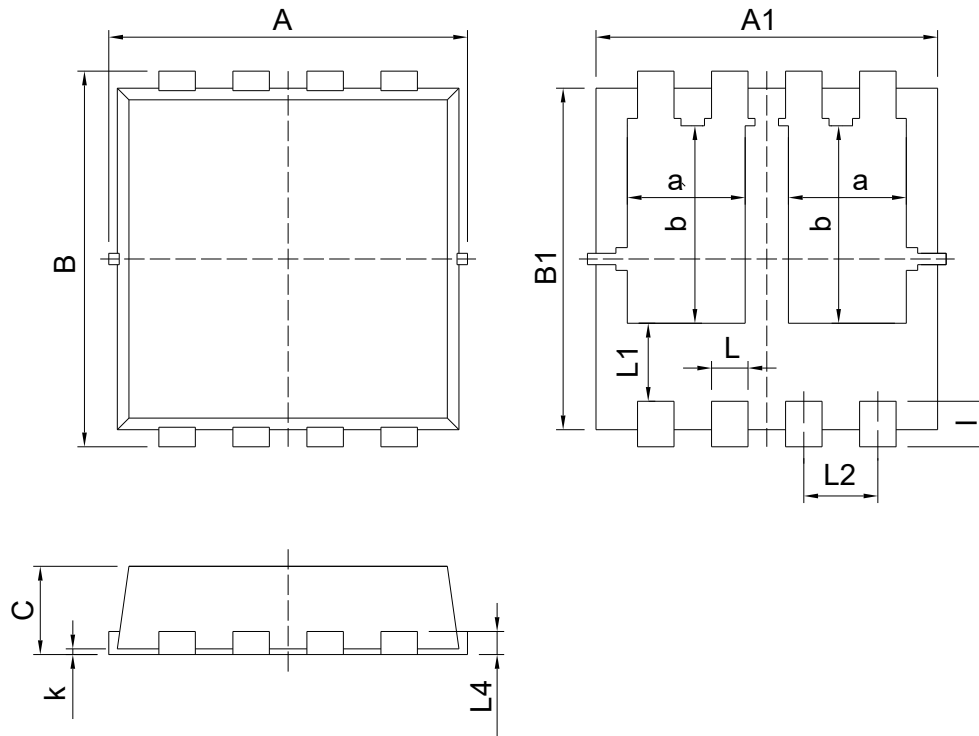
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Package Outline

PDFN3x3A-8L

Dimensions in mm



Symbol	Dimensions		Symbol	Dimensions	
	Min.	Max.		Min.	Max.
A	3.2	3.4	L2	0.55	0.75
A1	3.1	3.2	L4	0.14	0.20
B	3.2	3.4	a	0.935	1.135
B1	2.95	3.05	b	1.635	1.835
C	0.75	0.85	k	0.0	0.05
L	0.25	0.35	l	0.3	0.5
L1	-	0.75			