



PJM03DN20DFA

Dual N-Channel Enhancement Mode Power MOSFET

Product Summary

- $V_{DS} = 20V, I_D = 3.6A$
- $R_{DS(on)} < 45m\Omega @ V_{GS} = 4.5V$
- $R_{DS(on)} < 60m\Omega @ V_{GS} = 2.5V$

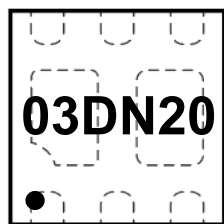
Features

- Advanced Trench Technology
- RoHS and Reach Compliant
- Halogen and Antimony Free
- Moisture Sensitivity Level 1

Application

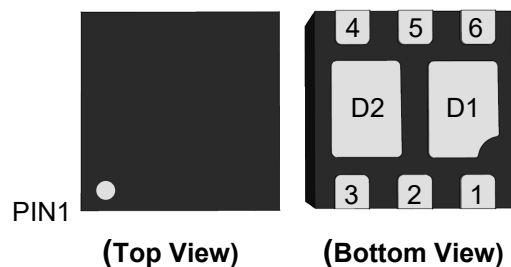
- DC/DC Converter
- Load Switch for Portable Devices

Marking Code



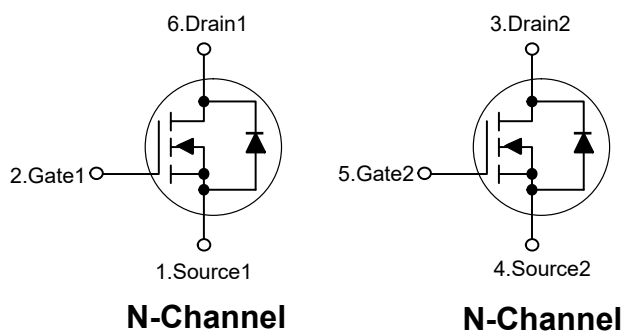
Top View

DFN2x2A-6L



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

Schematic Diagram



Absolute Maximum Ratings

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	20	V
Gate-Source Voltage	V_{GS}	± 12	V
Drain Current-Continuous	I_D	3.6	A
Drain Current-Pulsed ^{Note1}	I_{DM}	16	A
Maximum Power Dissipation	P_D	1	W
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

Thermal Characteristics

Thermal Resistance, Junction-to-Ambient ^{Note2}	$R_{\theta JA}$	125	°C/W
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Electrical Characteristics

(Ta=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	20	--	--	V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =20V, V _{GS} =0V	--	--	1	μA
Gate-Body Leakage Current	I _{GSS}	V _{GS} =±12V, V _{DS} =0V	--	--	±100	nA
Gate Threshold Voltage ^{Note3}	V _{GS(th)}	V _{DS} =V _{GS} , I _D =250μA	0.5	0.75	1.2	V
Drain-Source On-Resistance ^{Note3}	R _{DS(on)}	V _{GS} =4.5V, I _D =3A	--	--	45	mΩ
		V _{GS} =2.5V, I _D =2.8A	--	--	60	mΩ
Forward Transconductance ^{Note3}	g _{FS}	V _{DS} =5V, I _D =3A	--	8	--	S
Dynamic Characteristics						
Input Capacitance	C _{iss}	V _{DS} =10V, V _{GS} =0V, f=1MHz	--	300	--	pF
Output Capacitance	C _{oss}		--	120	--	pF
Reverse Transfer Capacitance	C _{rss}		--	80	--	pF
Total Gate Charge	Q _g	V _{DS} =10V, I _D =3A, V _{GS} =4.5V	--	4	--	nC
Gate-Source Charge	Q _{gs}		--	0.7	--	nC
Gate-Drain Charge	Q _{gd}		--	1.5	--	nC
Switching Characteristics						
Turn-on Delay Time	t _{d(on)}	V _{DD} =10V, I _D =3A, V _{GS} =4.5V, R _{GEN} =6Ω	--	10	--	nS
Turn-on Rise Time	t _r		--	50	--	nS
Turn-off Delay Time	t _{d(off)}		--	17	--	nS
Turn-off Fall Time	t _f		--	10	--	nS
Source-Drain Diode Characteristics						
Diode Forward Voltage ^{Note3}	V _{SD}	V _{GS} =0V, I _S =3.6A	--	--	1.2	V
Diode Forward Current ^{Note2}	I _S		--	--	3.6	A

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

2.Surface Mounted on FR4 Board, $t \leq 10$ sec.

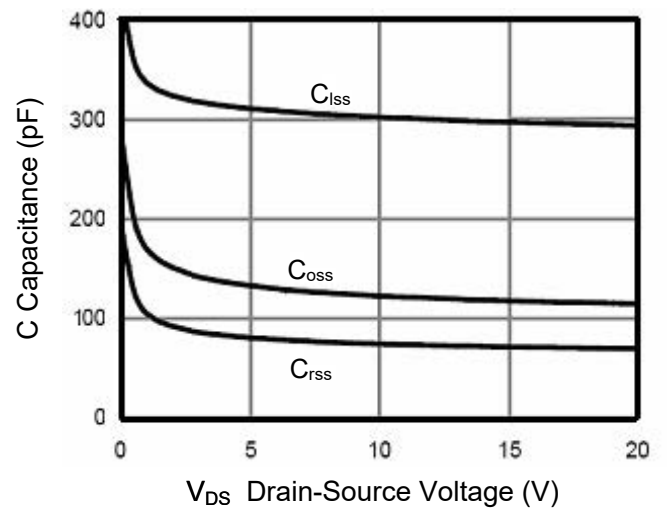
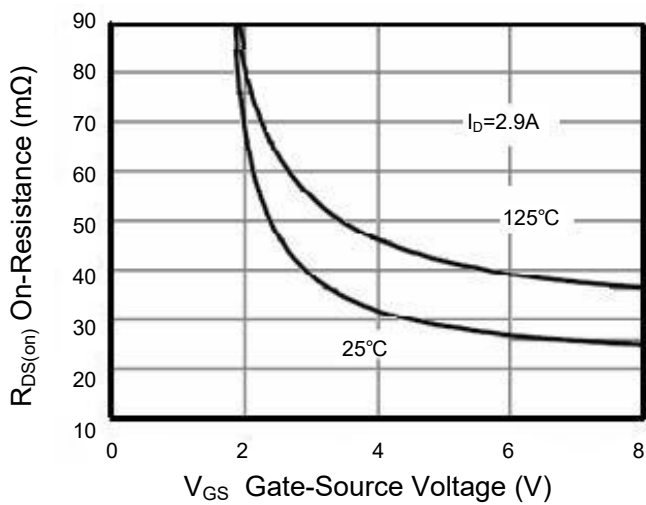
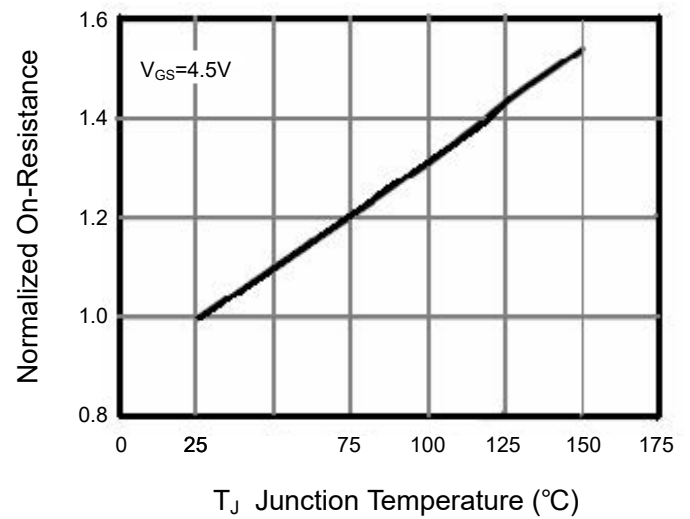
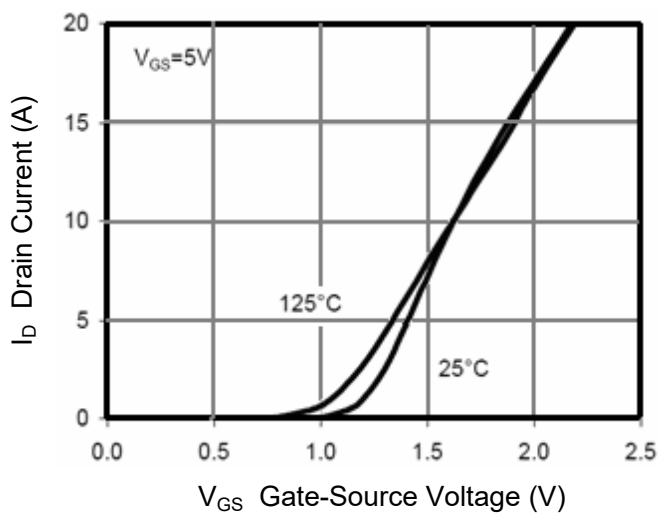
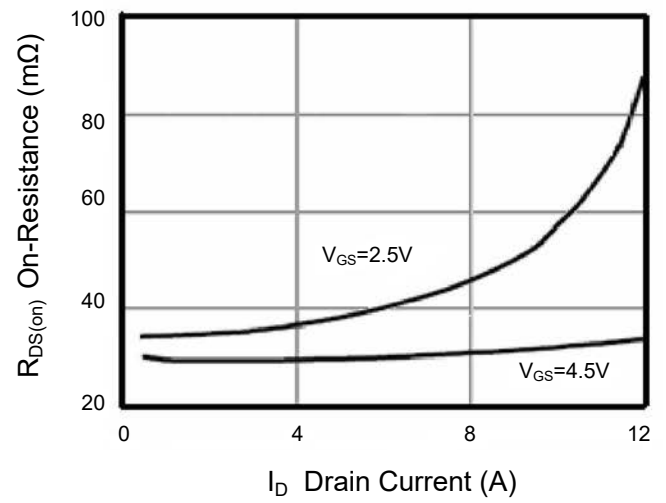
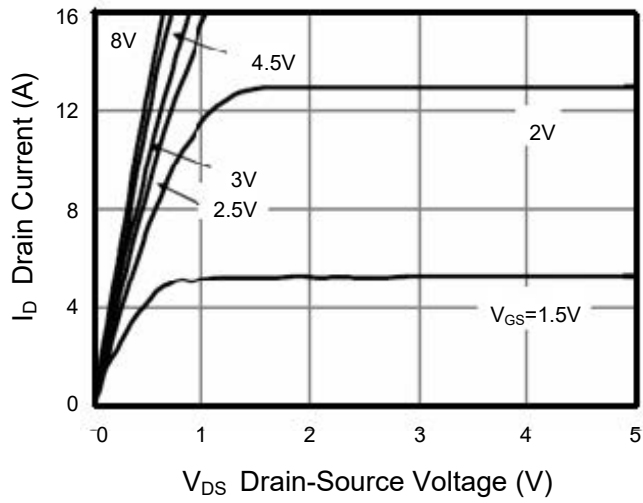
3.Pulse Test: Pulse width $\leq 300\mu s$, duty cycles $\leq 2\%$



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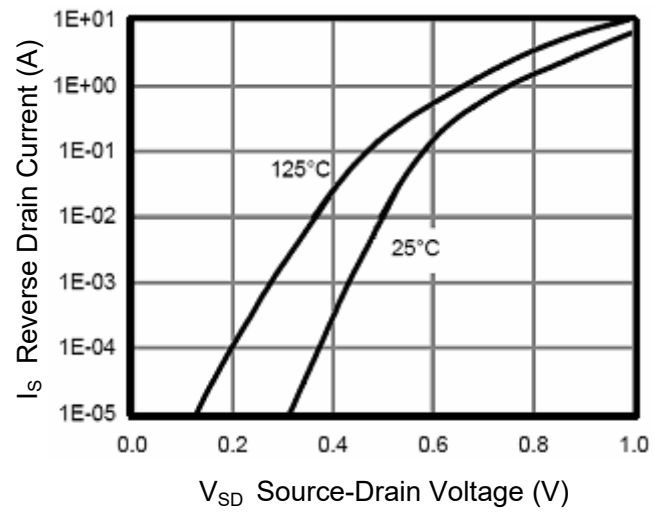
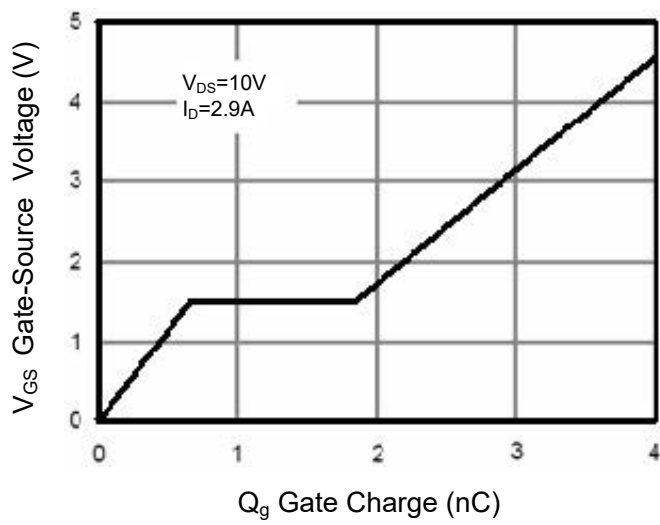
Typical Characteristic Curves





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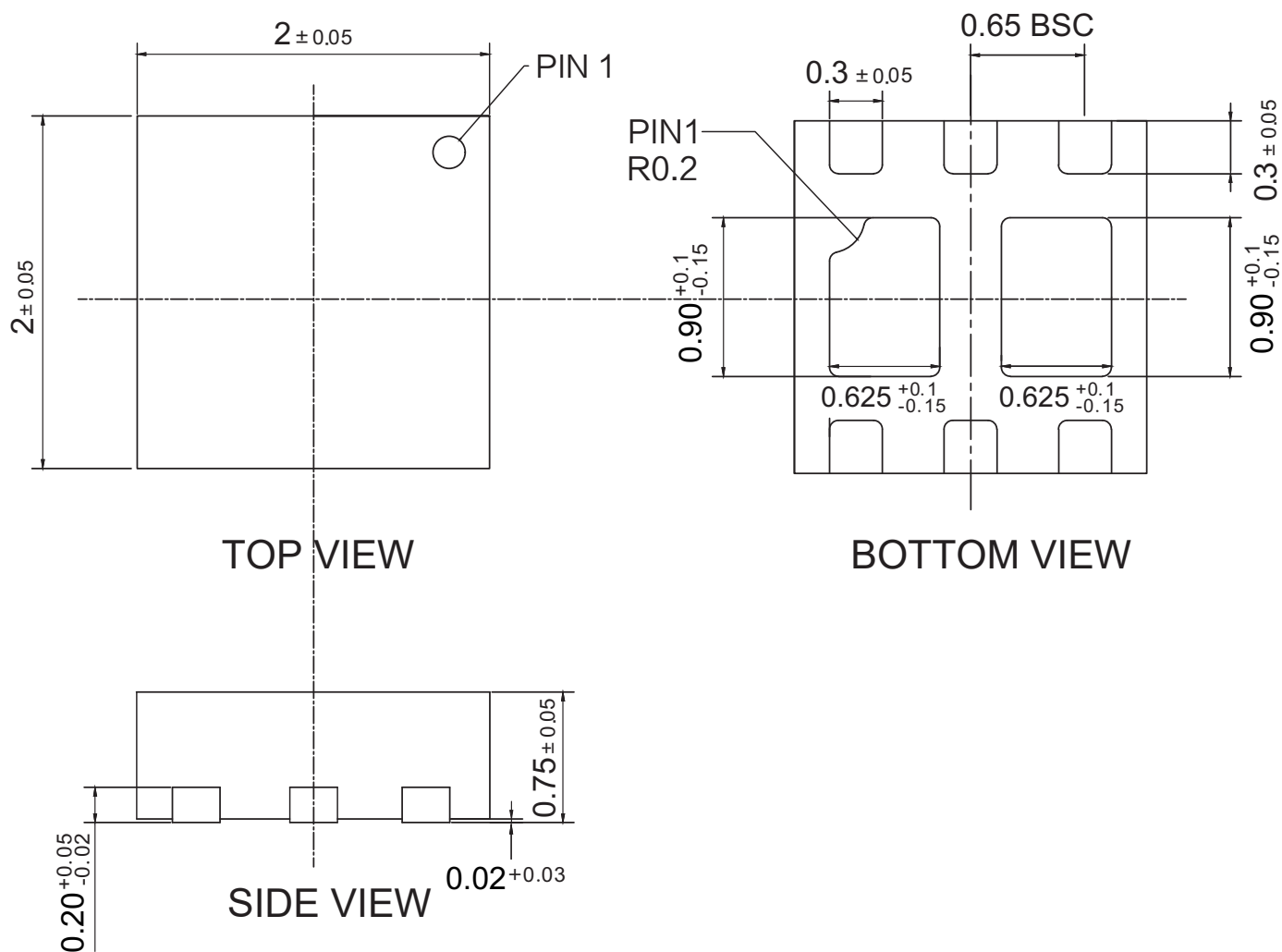
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Package Outline

DFN2x2-6L-0002

Dimensions in mm



Ordering Information

Device	Package	Shipping
PJM03DN20DFA	DFN2x2A-6L	3,000PCS/Reel&7inches