



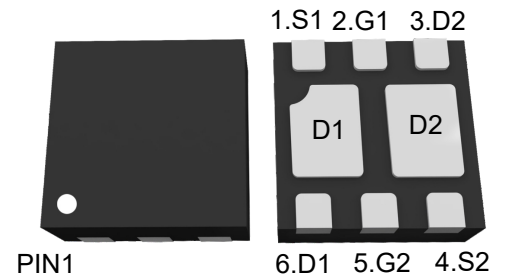
PJM03DP20DFA

Dual P-Channel Enhancement Mode Power MOSFET

Features

- Low gate charge and $R_{DS(ON)}$
- $V_{DS} = -20V, I_D = -3A$
 $R_{DS(on)} < 110m\Omega @ V_{GS} = -4.5V$

DFN2x2A-6L

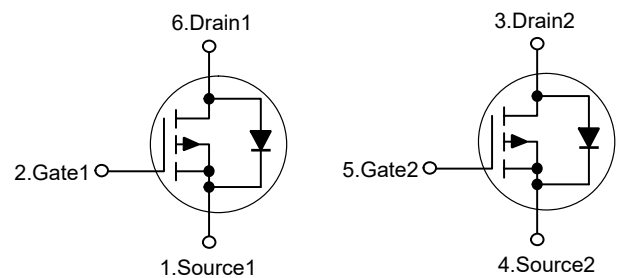


Marking Code: 03DP20

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	$-V_{DS}$	20	V
Gate-Source Voltage	V_{GS}	± 12	V
Drain Current-Continuous	$-I_D$	3	A
Drain Current-Pulsed ^{Note1}	$-I_{DM}$	10	A
Maximum Power Dissipation	P_D	1.5	W
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

Thermal Characteristics

Thermal Resistance, Junction-to-Ambient ^{Note2}	$R_{\theta JA}$	83	°C/W
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Electrical Characteristics

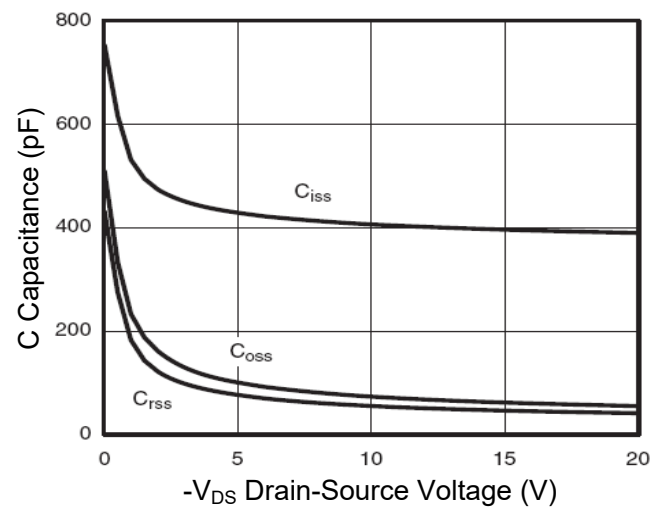
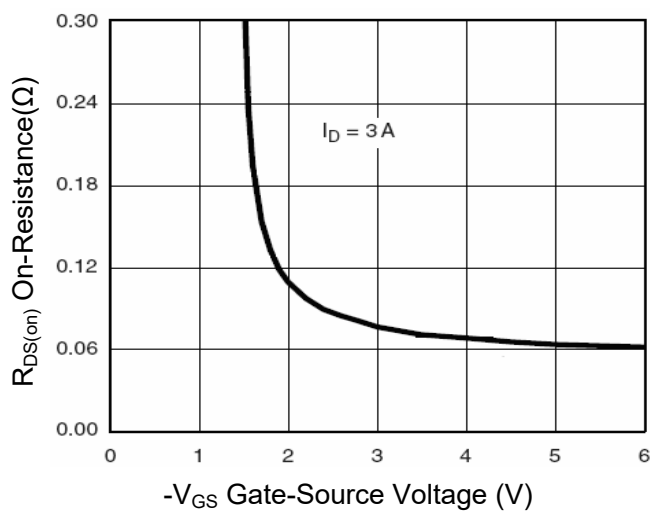
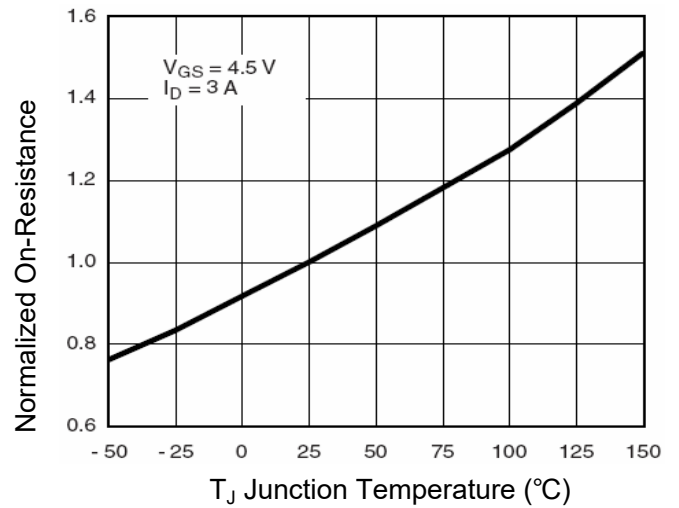
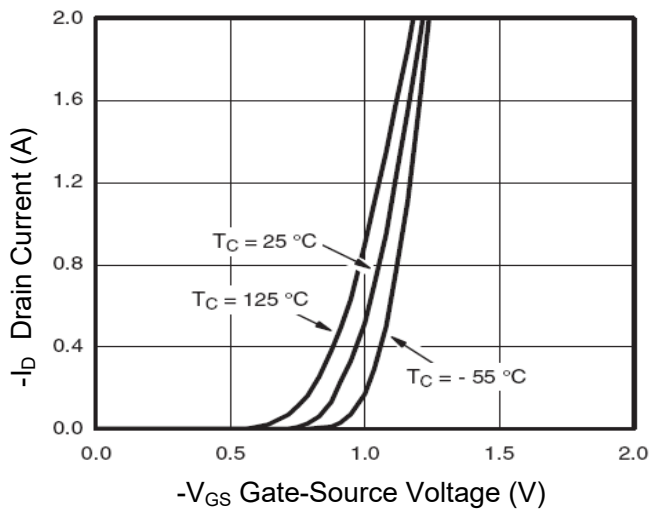
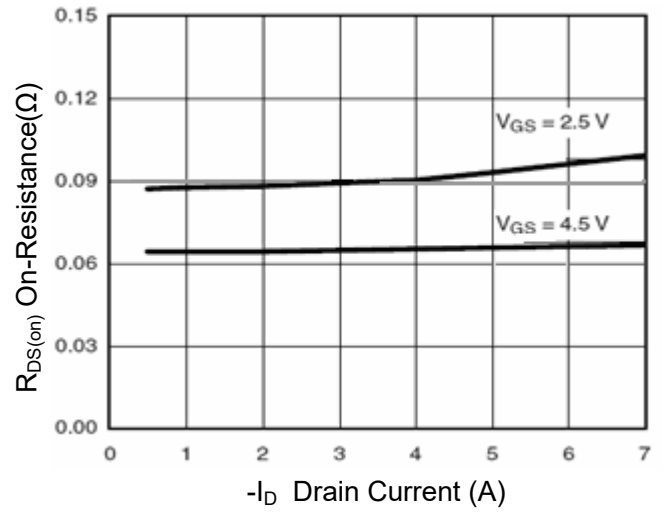
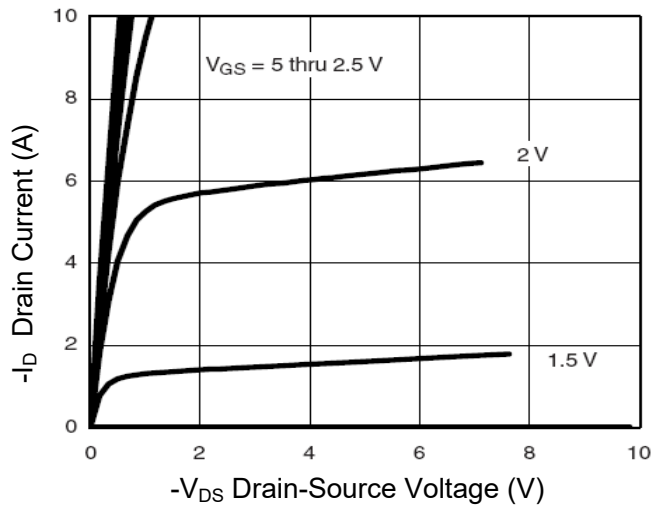
(Ta=25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Static Characteristics						
Drain-Source Breakdown Voltage	$-V_{(BR)DSS}$	$V_{GS}=0V, I_D=-250\mu A$	20	--	--	V
Zero Gate Voltage Drain Current	$-I_{DSS}$	$V_{DS}=-20V, V_{GS}=0V$	--	--	1	μA
Gate-Body Leakage Current	I_{GSS}	$V_{GS}=\pm 12V, V_{DS}=0V$	--	--	± 100	nA
Gate Threshold Voltage ^{Note3}	$-V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=-250\mu A$	0.4	0.7	1	V
Drain-Source On-Resistance ^{Note3}	$R_{DS(on)}$	$V_{GS}=-4.5V, I_D=-2.8A$	--	85	110	m Ω
		$V_{GS}=-2.5V, I_D=-2A$	--	120	140	m Ω
Forward Transconductance ^{Note3}	g_{FS}	$V_{DS}=-5V, I_D=-2A$	5	--	--	S
Dynamic Characteristics						
Input Capacitance	C_{iss}	$V_{DS}=-10V, V_{GS}=0V, f=1MHz$	--	405	--	pF
Output Capacitance	C_{oss}		--	75	--	pF
Reverse Transfer Capacitance	C_{rss}		--	55	--	pF
Switching Characteristics						
Turn-on Delay Time	$t_{d(on)}$	$V_{DS}=-10V, I_D=-1A$ $V_{GEN}=-4.5V, R_G=10\Omega$	--	11	--	nS
Turn-on Rise Time	t_r		--	15	--	nS
Turn-off Delay Time	$t_{d(off)}$		--	30	--	nS
Turn-off Fall Time	t_f		--	10	--	nS
Total Gate Charge	Q_g	$V_{DS}=-10V, I_D=-3A, V_{GS}=-2.5V$	--	3.3	--	nC
Gate-Source Charge	Q_{gs}		--	0.7	--	nC
Gate-Drain Charge	Q_{gd}		--	1.3	--	nC
Source-Drain Diode Characteristics						
Diode Forward Voltage ^{Note3}	$-V_{SD}$	$V_{GS}=0V, I_S=-2.5A$	--	--	1.2	V
Diode Forward Current ^{Note2}	$-I_S$		--	--	3	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 cycle $\leq 2\%$.



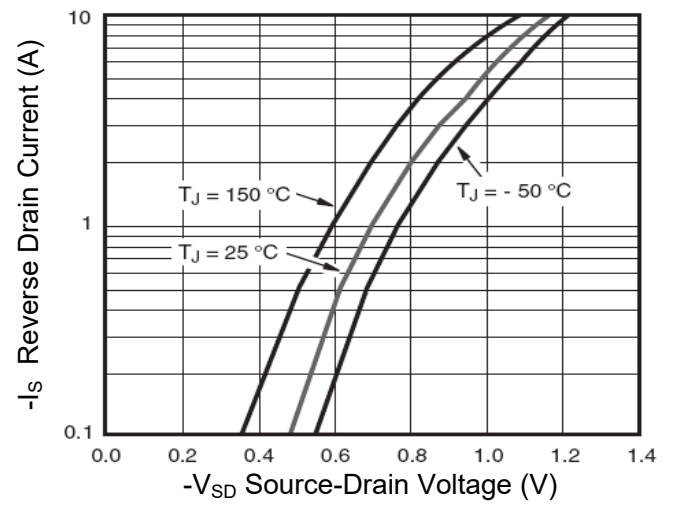
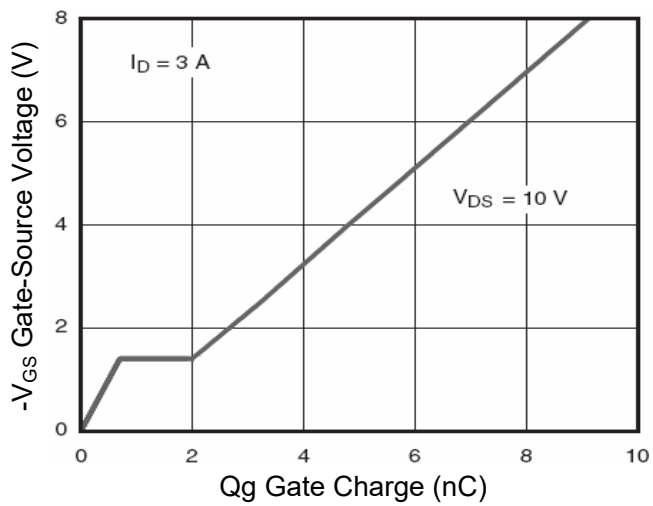
Typical Characteristic Curves





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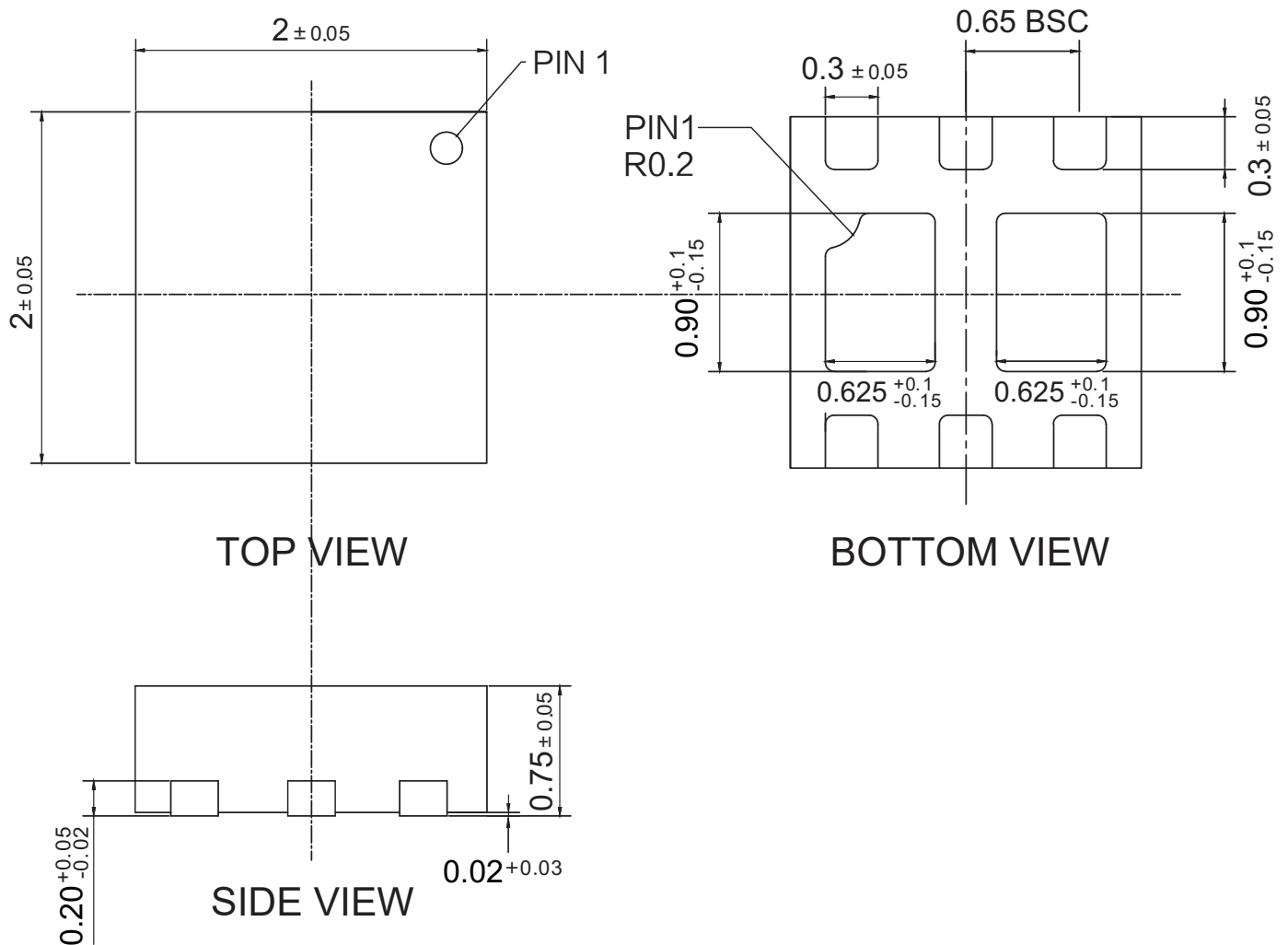
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Package Outline

DFN2x2-6L-0002

Dimensions in mm



Ordering Information

Device	Package	Shipping
PJM03DP20DFA	DFN2x2A-6L	3,000PCS/Reel&7inches