



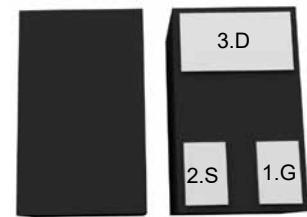
# PJM7002KNDC

## N-Channel Enhancement Mode Power MOSFET

### Features

- Fast switching
- Low gate charge and  $R_{DS(ON)}$
- Low reverse transfer capacitances
- $V_{DS} = 60V, I_D = 0.3A$   
 $R_{DS(on)} < 3\Omega @ V_{GS} = 10V$

DFN1x0.6-3L

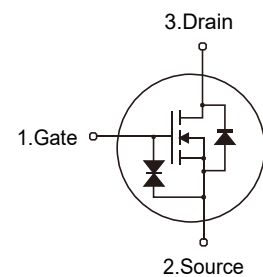


Marking Code: K72

### Applications

- Load switch
- PWM application

### Schematic Diagram



### Absolute Maximum Ratings

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Drain-Source Voltage	$V_{DS}$	60	V
Gate-Source Voltage	$V_{GS}$	$\pm 20$	V
Drain Current-Continuous	$I_D$	0.3	A
Drain Current-Pulsed <sup>Note1</sup>	$I_{DM}$	0.8	A
Maximum Power Dissipation	$P_D$	0.3	W
Junction Temperature	$T_J$	150	°C
Storage Temperature Range	$T_{STG}$	-55 to +150	°C

### Thermal Characteristics

Thermal Resistance, Junction-to-Ambient <sup>Note2</sup>	$R_{\theta JA}$	357	°C/W
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# PJM7002KNDC

## N-Channel Enhancement Mode Power MOSFET

### Electrical Characteristics

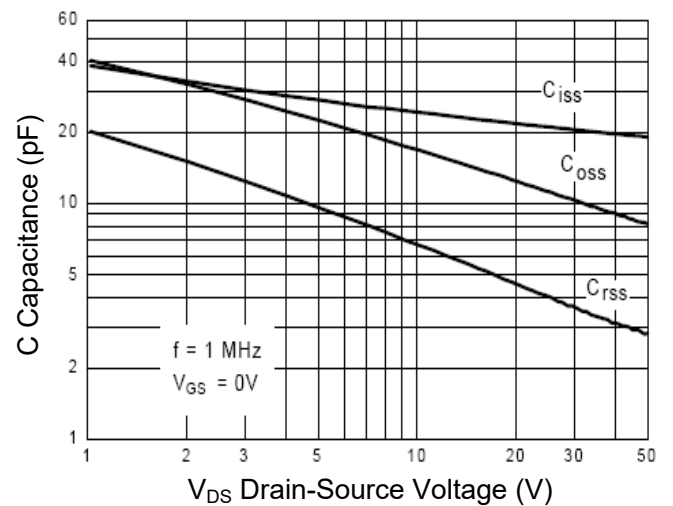
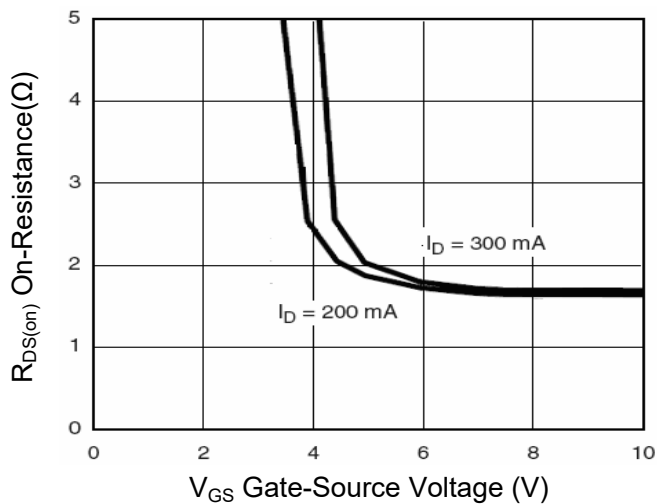
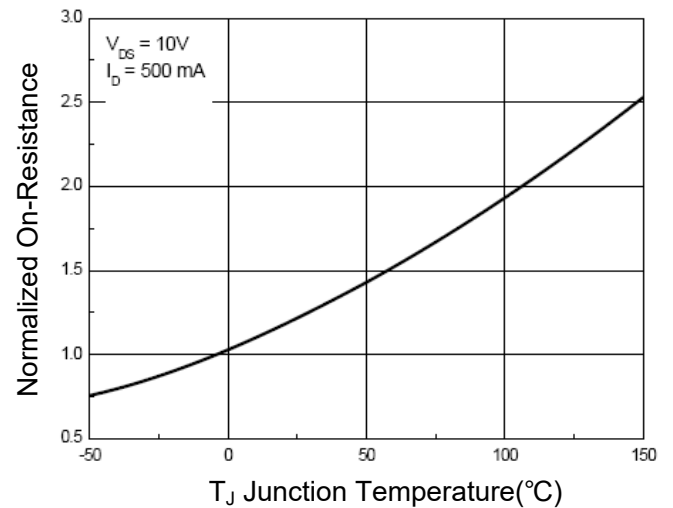
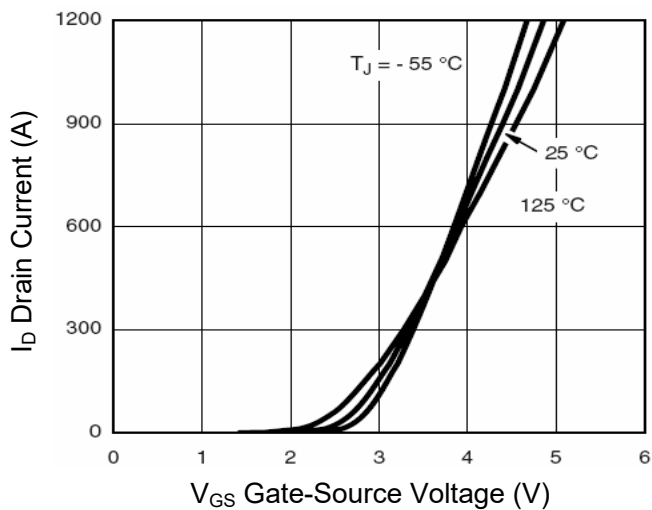
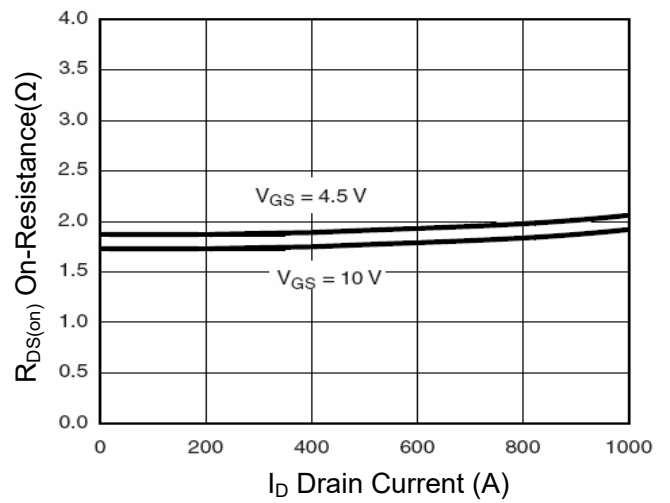
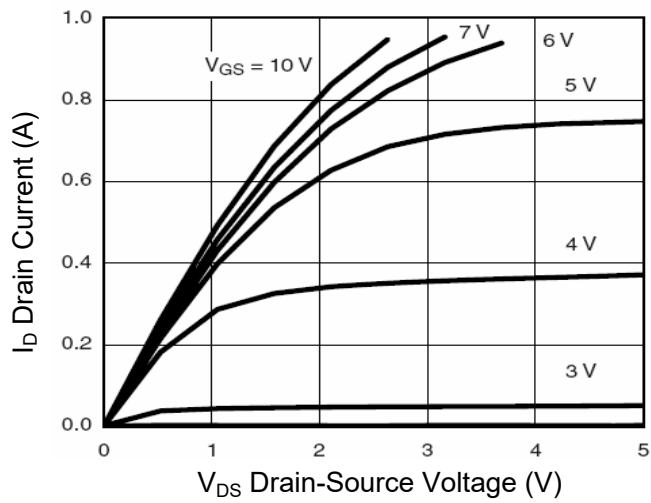
(Ta=25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
<b>Static Characteristics</b>						
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS}=0V, I_D=250\mu A$	60	--	--	V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=60V, V_{GS}=0V$	--	--	1	$\mu A$
Gate-Body Leakage Current	$I_{GSS}$	$V_{GS}=\pm 20V, V_{DS}=0V$	--	--	$\pm 10$	$\mu A$
Gate Threshold Voltage <sup>Note3</sup>	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu A$	1	1.4	2.5	V
Drain-Source On-Resistance <sup>Note3</sup>	$R_{DS(on)}$	$V_{GS}=10V, I_D=0.5A$	--	1.9	3	$\Omega$
		$V_{GS}=4.5V, I_D=0.3A$	--	2.2	4	$\Omega$
Forward Transconductance <sup>Note3</sup>	$g_{FS}$	$V_{DS}=10V, I_D=0.2A$	0.1	--	--	S
<b>Dynamic Characteristics</b>						
Input Capacitance	$C_{iss}$	$V_{DS}=25V, V_{GS}=0V, f=1MHz$	--	21	--	pF
Output Capacitance	$C_{oss}$		--	11	--	pF
Reverse Transfer Capacitance	$C_{rss}$		--	4.2	--	pF
<b>Switching Characteristics</b>						
Turn-on Delay Time	$t_{d(on)}$	$V_{DS}=30V, I_D=0.2A$ $V_{GEN}=10V, R_G=10\Omega$	--	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
Total Gate Charge	$Q_g$	$V_{DS}=10V, I_D=0.3A, V_{GS}=4.5V$	--	1.7	--	nC
<b>Source-Drain Diode Characteristics</b>						
Diode Forward Voltage <sup>Note3</sup>	$V_{SD}$	$V_{GS}=0V, I_S=0.2A$	--	--	1.2	V
Diode Forward Current <sup>Note2</sup>	$I_S$		--	--	0.3	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  $\leq 2\%$ .



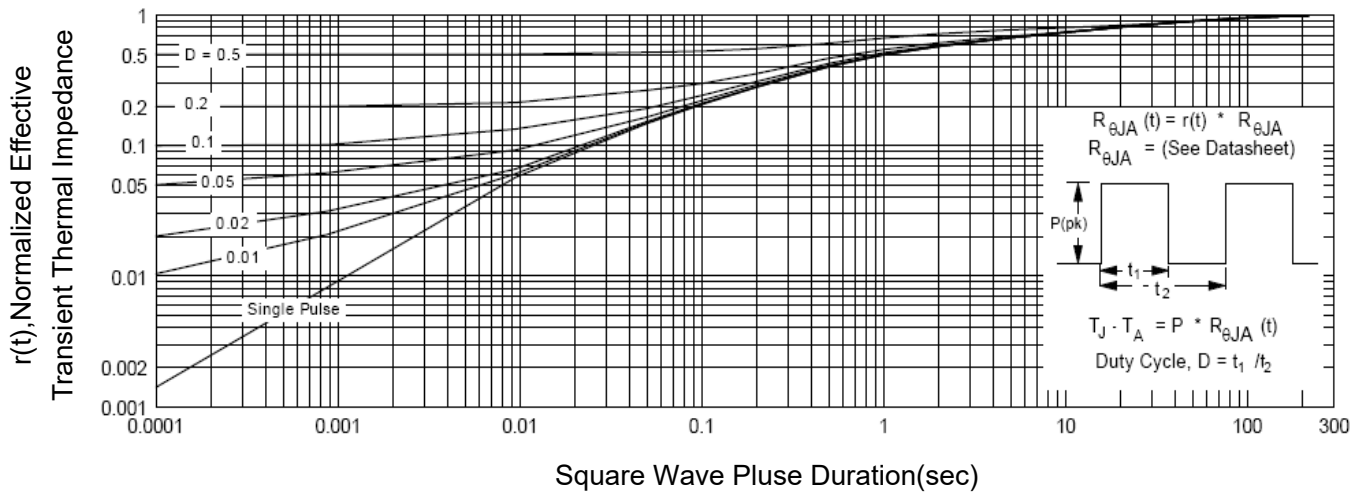
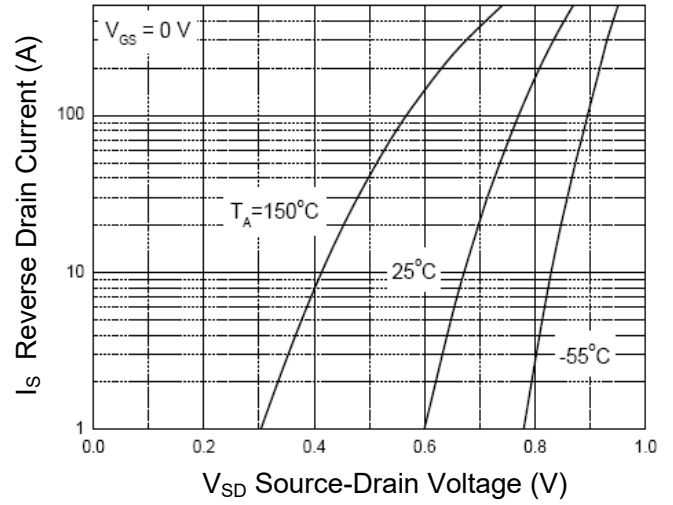
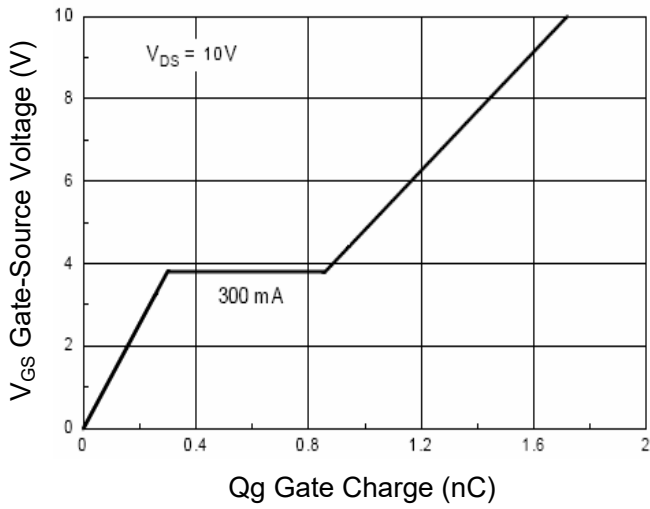
### Typical Characteristic Curves





# PJM7002KNDC

## N-Channel Enhancement Mode Power MOSFET





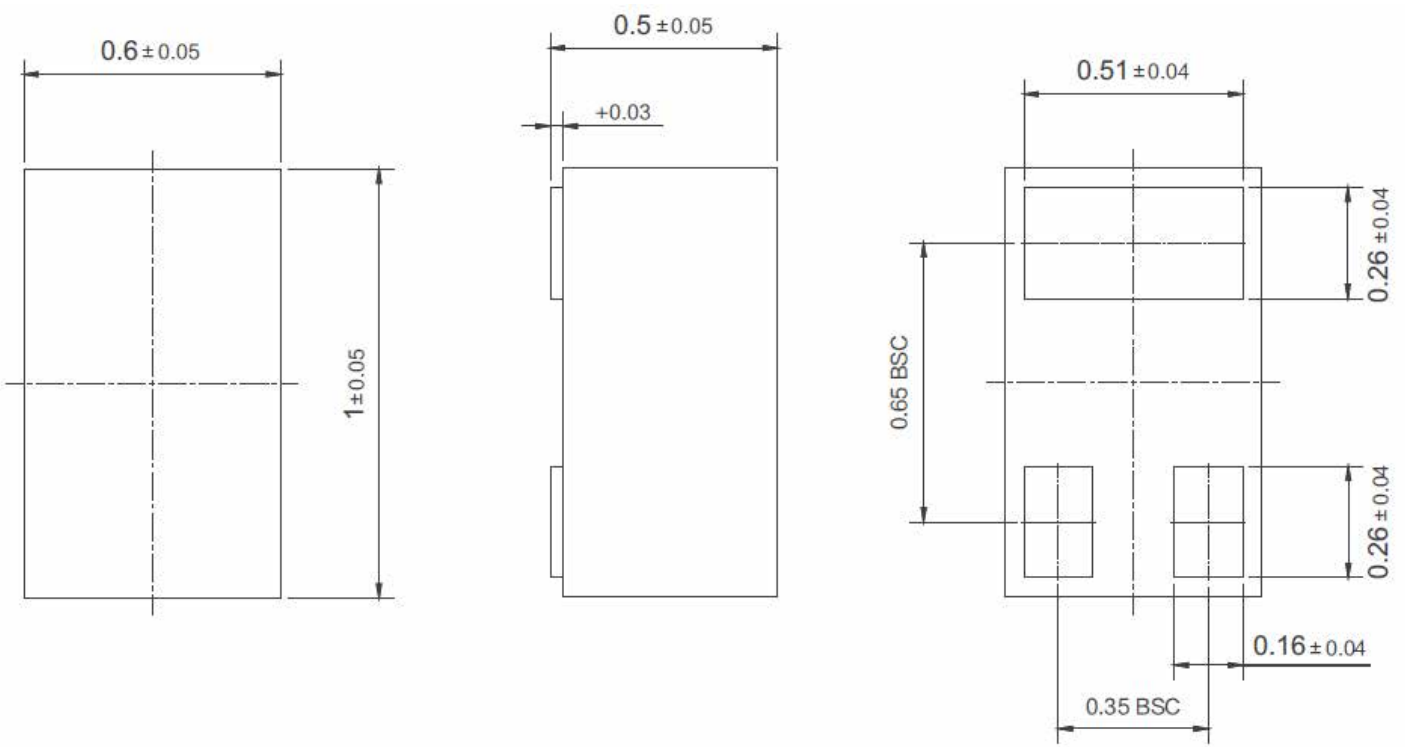
# PJM7002KNDC

## N-Channel Enhancement Mode Power MOSFET

### Package Outline

DFN1x0.6-3L-0009

Dimensions in mm



### Ordering Information

Device	Package	Shipping
PJM7002KNDC	DFN1x0.6-3L	10,000PCS/Reel&7inches

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