

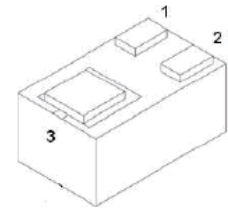
P-Channel MOSFET

2KJ7111DFN

■ Features

- $V_{DS} (V) = -20 V$
- $I_D = -0.66 A$
- $R_{DS(ON)} (at V_{GS} = -4.5 V) < 600 m\Omega$
- $R_{DS(ON)} (at V_{GS} = -2.5 V) < 900 m\Omega$

DFN1006-3



- 1.GATE
- 2.SOURCE
- 3.DRAIN

■ Absolute Maximum Ratings ($T_a = 25^\circ C$ unless otherwise noted)

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-20	V
Gate-Source Voltage	V_{GS}	± 12	
Continuous Drain Current (Note 1)	I_D	-0.66	A
Pulsed Drain Current ($t_p=10\mu s$)	I_{DM}	-1.2	
Power Dissipation (Note 1)	P_D	100	mW
Thermal Resistance, Junction-to-Ambient (Note 1)	$R_{\theta JA}$	1250	$^\circ C/W$
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55 to 150	

Note 1.Surface mounted on FR4 board using the minimum recommended pad size.

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■ Electrical Characteristics ($T_a = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
STATIC PARAMETERS						
Drain-Source Breakdown Voltage	BV _{DSS}	I _D = -250 μA , V _{GS} = 0V	-20			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = -20 V, V _{GS} = 0 V			-1	μA
Gate to Source Leakage Current	I _{GSS}	V _{DS} = 0 V, V _{GS} = ± 10 V			± 20	
Gate to Source Threshold Voltage (Note 2)	V _{GS(th)}	V _{DS} = V _{GS} , I _D = -250 μA	-0.35		-1.1	V
Static Drain-Source On-Resistance (Note 2)	R _{DS(on)}	V _{GS} = -4.5 V, I _D = -1 A			600	m Ω
		V _{GS} = -2.5 V, I _D = -0.8 A			900	
		V _{GS} = -2.0 V, I _D = -0.5 A		1000		
Forward Transconductance (Note 2)	g _{FS}	V _{DS} = -10 V, I _D = -0.54 A		1.2		S
Diode Forward Voltage	V _{SD}	V _{GS} = 0 V, I _S = -0.5 A			-1.2	V
DYNAMIC PARAMETERS (Note 4)						
Input Capacitance	C _{iss}	V _{GS} = 0 V, V _{DS} = -16 V, f = 1 MHz		113	170	pF
Output Capacitance	C _{oss}		15	25		
Reverse Transfer Capacitance	C _{rss}		9	15		
SWITCHING PARAMETERS (Note 4)						
Turn-On Delay Time (Note 3)	t _{d(on)}	V _{GS} = -10V, V _{DD} = -4.5 V, I _D = -200mA, R _{GEN} = 10 Ω		9		ns
Turn-On Rise Time (Note 3)	t _r		5.8			
Turn-Off Delay Time (Note 3)	t _{d(off)}		32.7			
Turn-Off Fall Time (Note 3)	t _f		20.3			

Notes:

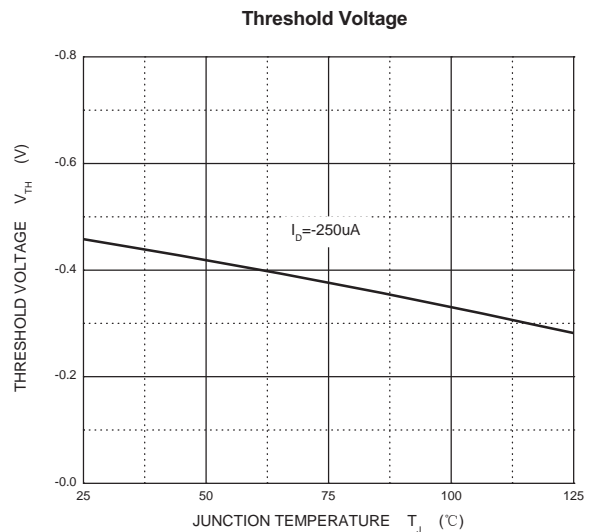
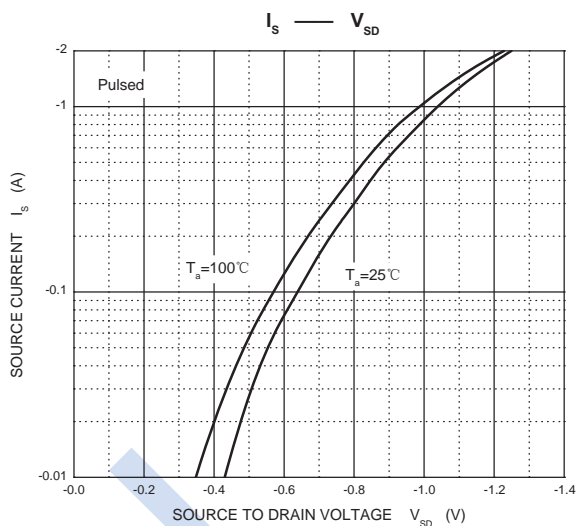
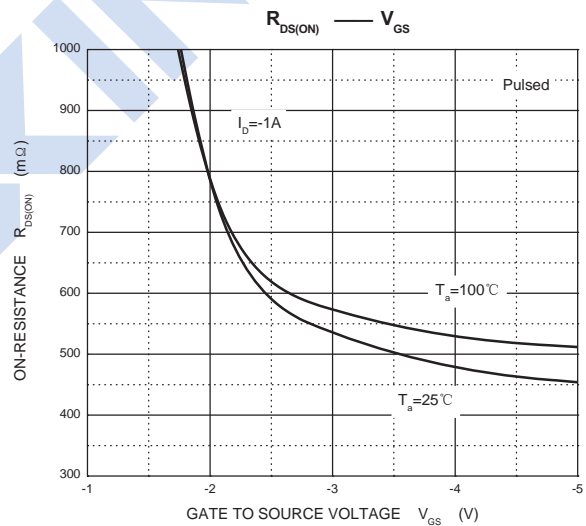
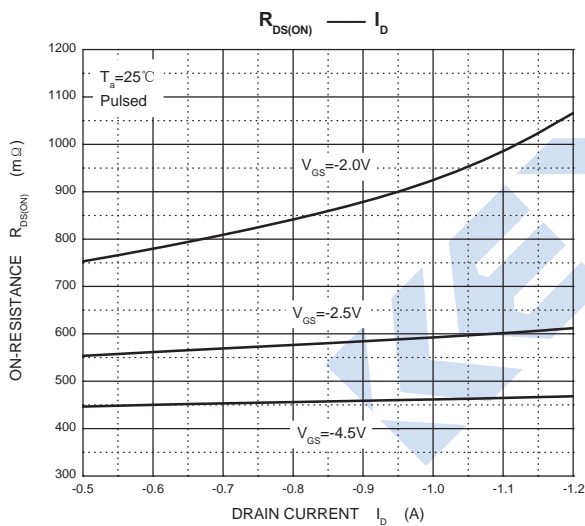
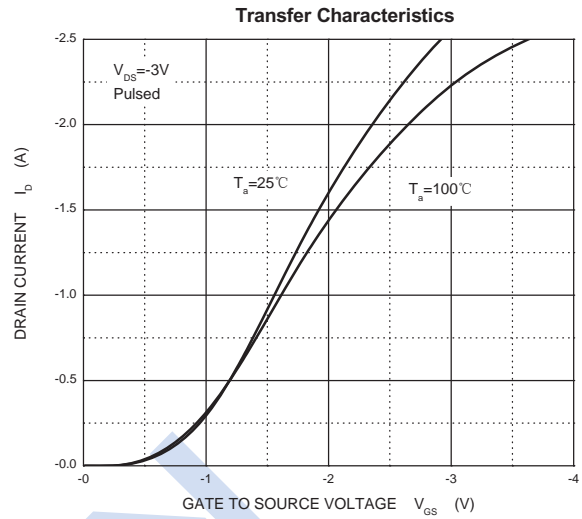
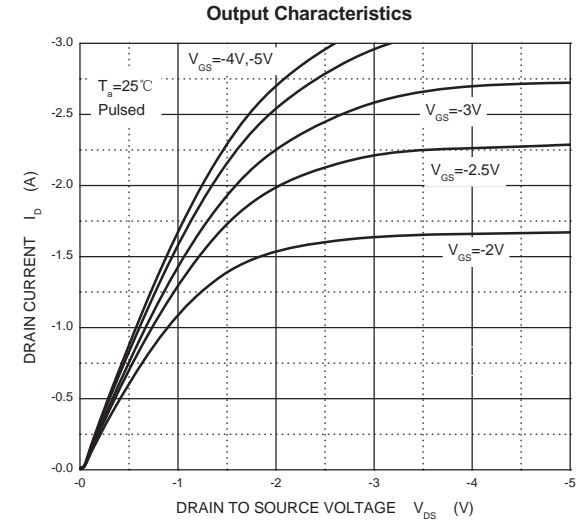
- Pulse Test : Pulse width=300 μs , duty cycle $\leq 2\%$.
- Switching characteristics are independent of operating junction temperatures.
- Granted by design, not subject to producing.

■ Marking

Marking	2
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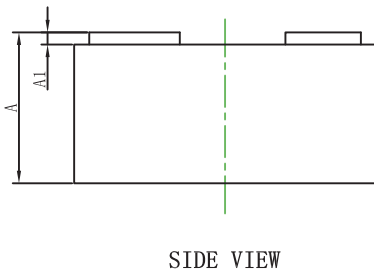
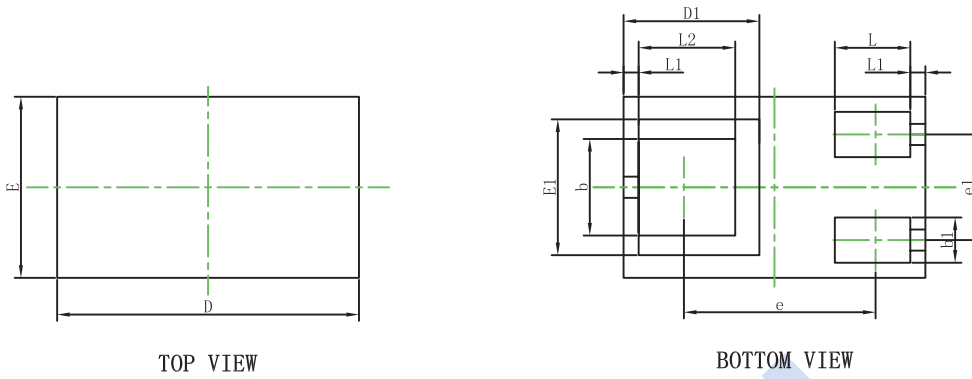
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Typical Characteristics



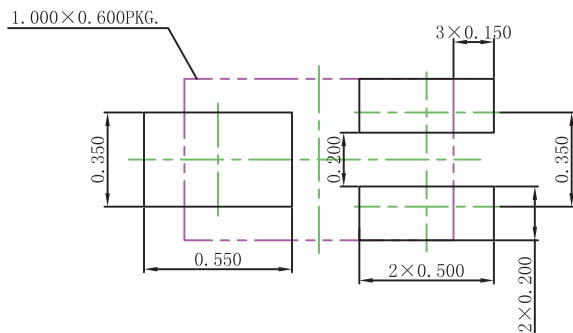
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DFN1006-3 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.450	0.550	0.018	0.022
A1	0.010	0.100	0.000	0.004
D	0.950	1.050	0.037	0.041
E	0.550	0.650	0.022	0.026
D1	0.450REF.		0.018REF.	
E1	0.450REF.		0.018REF.	
b	0.270	0.370	0.011	0.015
b1	0.100	0.200	0.004	0.008
e	0.635REF.		0.025REF.	
e1	0.300	0.400	0.012	0.016
L	0.200	0.300	0.008	0.012
L1	0.050REF.		0.002REF.	
L2	0.270	0.370	0.011	0.015

DFN1006-3 Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.050 mm.
3. The pad layout is for reference purposes only.