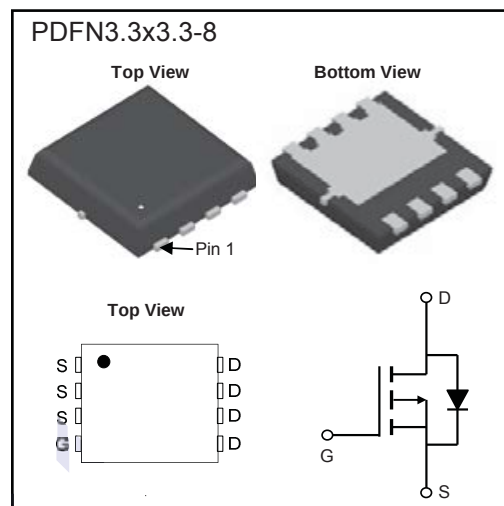


P-Channel MOSFET

RCJ7118

■ Features

- $V_{DS} = -30V$
- $I_D = -36.1 A$
- $R_{DS(on)} < 12m\Omega$ @ $V_{GS} = -10V$
- $R_{DS(on)} < 19m\Omega$ @ $V_{GS} = -4.5V$



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

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	-30	V
Gate-Source Voltage		V_{GS}	± 20	
Continuous Drain Current	$T_A = 25^\circ C$	I_D	-36.1	A
	$T_A = 70^\circ C$		-28.9	
Pulsed Drain Current		I_{DM}	-144	
Maximum Power Dissipation	$T_A = 25^\circ C$	P_D	25	W
	$T_A = 70^\circ C$		16	
Thermal Resistance, Junction- to-Ambient (Note 1)		$R_{\theta JA}$	5	$^\circ C/W$
Junction Temperature		T_J	150	$^\circ C$
Storage Temperature Range		T_{stg}	-55 to 150	

Note 1. The device mounted on 1in² FR4 board with 2 oz copper.

P-Channel MOSFET RCJ7118

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{DS}	$I_D = -250\mu\text{A}$, $V_{GS} = 0\text{V}$	-30			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -24\text{V}$, $V_{GS} = 0\text{V}$			-1	μA
Gate-Body Leakage Current	I_{GSS}	$V_{DS} = 0\text{V}$, $V_{GS} = \pm 20\text{V}$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}$, $I_D = -250\mu\text{A}$	-1.0		-2.5	V
Static Drain-Source On-Resistance (Note 1)	$R_{DS(on)}$	$V_{GS} = -10\text{V}$, $I_D = -12\text{A}$		8	12	m Ω
		$V_{GS} = -4.5\text{V}$, $I_D = -9\text{A}$		12	19	
Input Capacitance	C_{iss}	$V_{GS} = 0\text{V}$, $V_{DS} = -15\text{V}$, $f = 1\text{MHz}$		2690		pF
Output Capacitance	C_{oss}			371		
Reverse Transfer Capacitance	C_{rss}			293		
Turn-On Delay Time	$t_{d(on)}$	$V_{DS} = -15\text{V}$, $R_L = 15\Omega$ $V_{GS} = -10\text{V}$, $R_{GEN} = 3.3\Omega$		45.5		ns
Turn-On Rise Time	t_r			19.3		
Turn-Off Delay Time	$t_{d(off)}$			152		
Turn-Off Fall Time	t_f			40.8		
Total Gate Charge	Q_g	$V_{DS} = -15\text{V}$, $I_D = -15\text{A}$, $V_{GS} = -4.5\text{V}$		27.6		nC
Gate Source Charge	Q_{gs}			14.1		
Gate Drain Charge	Q_{gd}			16.3		
Diode Forward Voltage	V_{SD}	$I_{SD} = -1\text{A}$, $V_{GS} = 0\text{V}$			-1	V

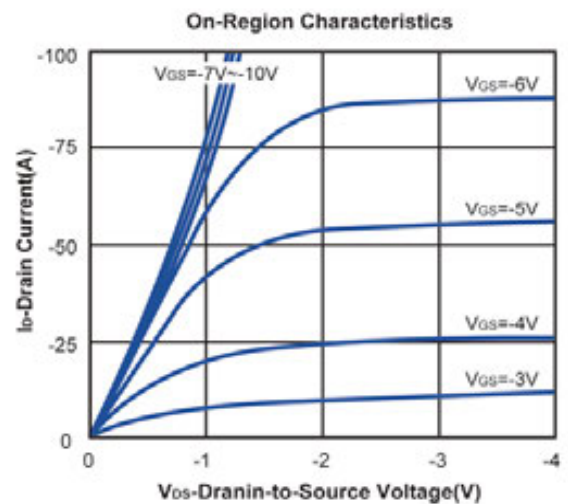
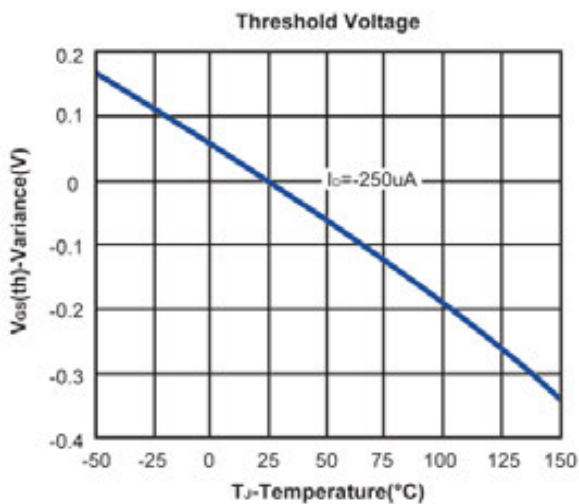
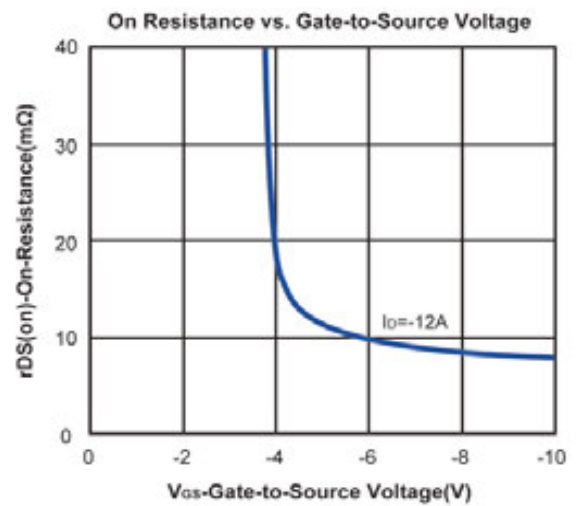
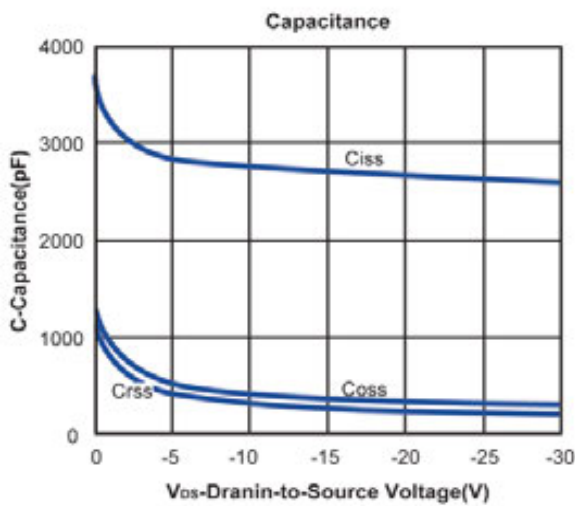
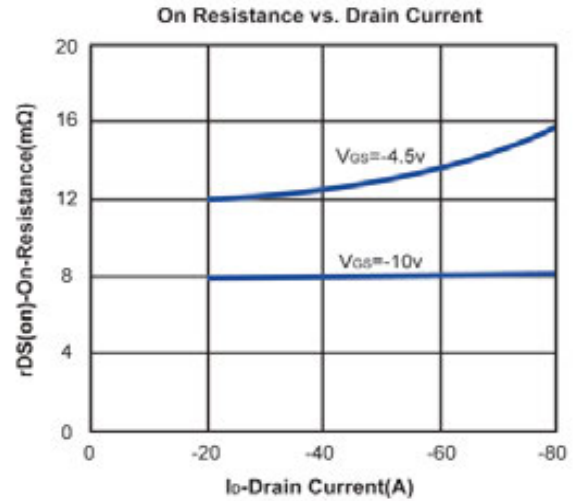
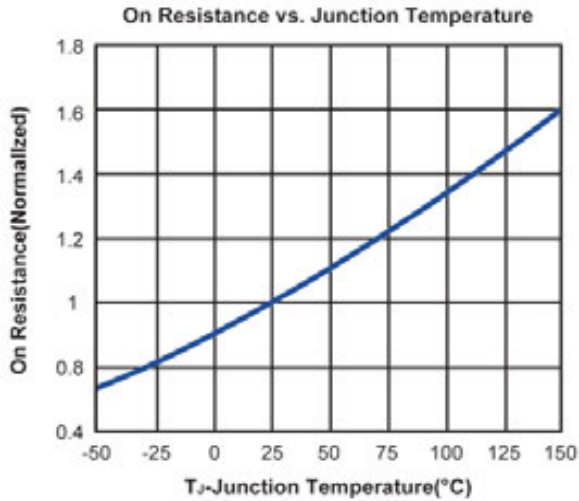
Note 1. Pulse Test: Pulse Width $\leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$.

■ Marking

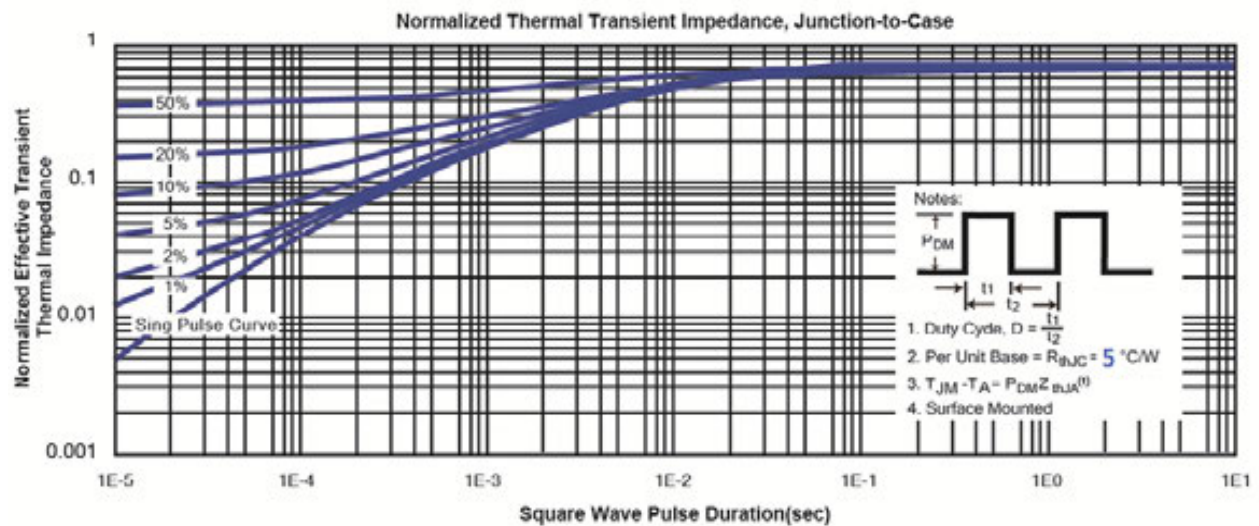
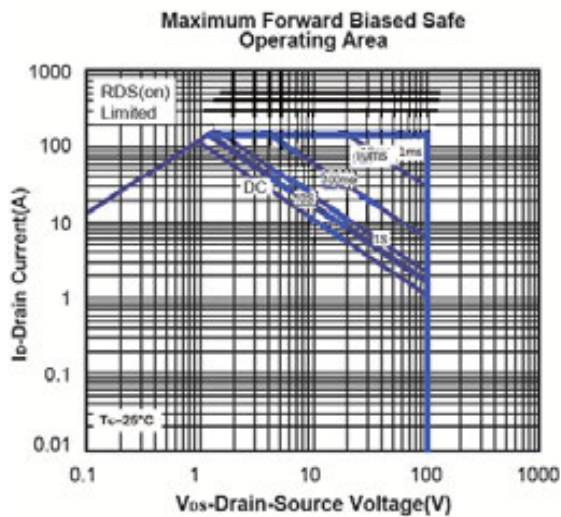
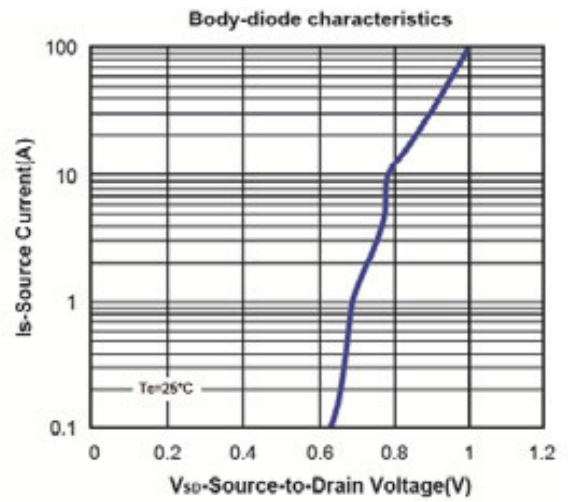
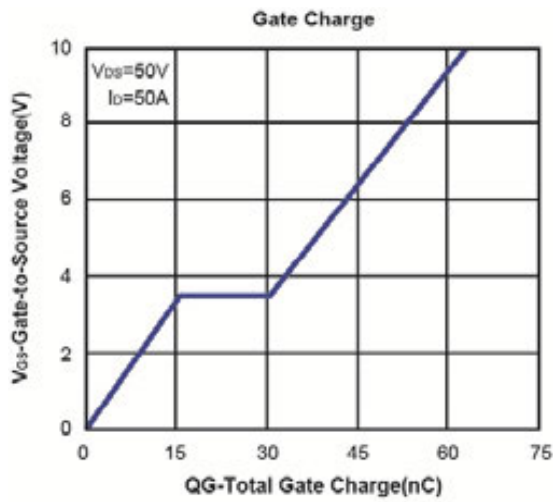
Marking	J7118 *****
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P-Channel MOSFET RCJ7118

Typical Characteristics



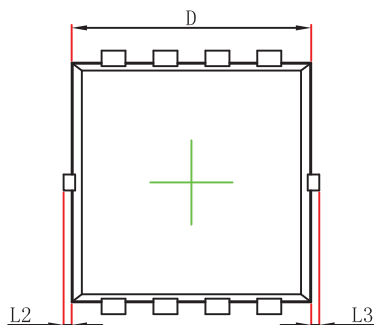
P-Channel MOSFET RCJ7118



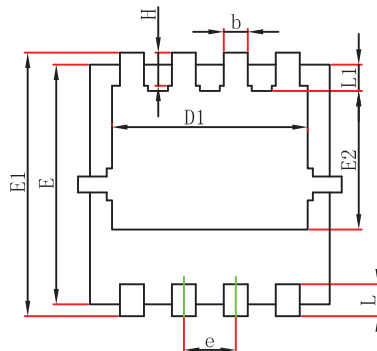
P-Channel MOSFET

RCJ7118

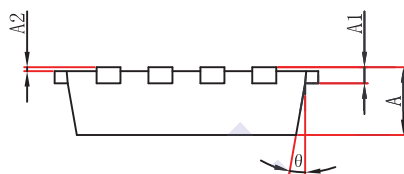
PDFN3.3x3.3-8 Package Outline Dimensions



Top View



Bottom View



Side View

Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.650	0.850	0.026	0.033
A1	0.152 REF.		0.006 REF.	
A2	0~0.05		0~0.002	
D	2.900	3.100	0.114	0.122
D1	2.300	2.600	0.091	0.102
E	2.900	3.100	0.114	0.122
E1	3.150	3.450	0.124	0.136
E2	1.535	1.935	0.060	0.076
b	0.200	0.400	0.008	0.016
e	0.550	0.750	0.022	0.030
L	0.300	0.500	0.012	0.020
L1	0.180	0.480	0.007	0.019
L2	0~0.100		0~0.004	
L3	0~0.100		0~0.004	
H	0.315	0.515	0.012	0.020
θ	9°	13°	9°	13°