

RJJ0315DPA

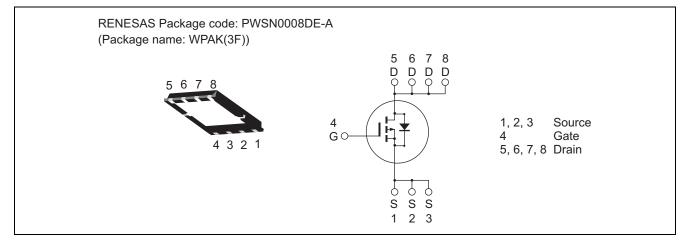
-30V, -35A, 5.9mΩmax. P Channel Power MOS FET High Speed Power Switching

R07DS0388EJ0400 Rev.4.00 Mar 22, 2013

Features

- High speed switching
- Capable of 4.5 V gate drive
- Low drive current
- High density mounting
- Low on-resistance
- Pb-free
- Halogen-free

Outline



Absolute Maximum Ratings

			$(Ta = 25^{\circ}C)$
Item	Symbol	Ratings	Unit
Drain to source voltage	V _{DSS}	-30	V
Gate to source voltage	V _{GSS}	-20/+10	V
Drain current	I _D	-35	A
Drain peak current	Note1 I _{D(pulse)}	-140	A
Body-drain diode reverse drain current	I _{DR}	-35	A
Channel dissipation	Pch Note2	30	W
Channel temperature	Tch	150	°C
Storage temperature	Tstg	-55 to +150	٦°

Notes: 1. $PW \le 10\mu s$, duty cycle $\le 1 \%$

2. Tc = 25°C



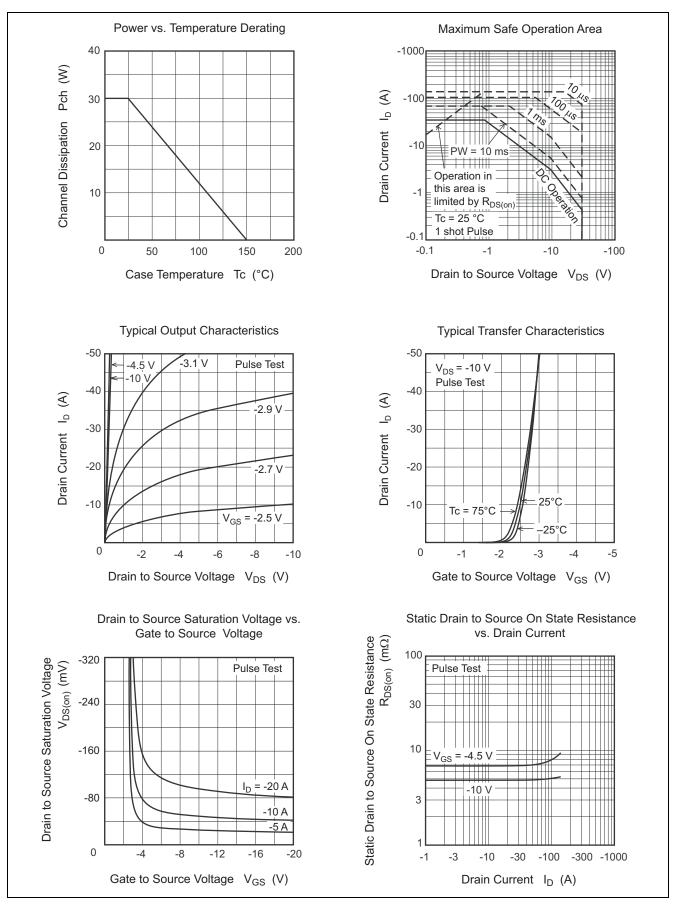
Electrical Characteristics

						$(Ta = 25^{\circ}C)$
Item	Symbol	Min	Тур	Max	Unit	Test Conditions
Drain to source breakdown voltage	V _{(BR)DSS}	-30	—	—	V	$I_{D} = -10 \text{mA}, V_{GS} = 0$
Gate to source leak current	I _{GSS}	_	—	±0.1	μΑ	V _{GS} = -20,+10V, V _{DS} = 0
Zero gate voltage drain current	I _{DSS}		_	-1	μA	$V_{DS} = -30V, V_{GS} = 0$
Gate to source cutoff voltage	V _{GS(off)}	-1.0	_	-2.5	V	$V_{DS} = -10V, I_{D} = -1mA$
Static drain to source on state	R _{DS(on)}		4.8	5.9	mΩ	$I_D = -17.5A$, $V_{GS} = -10V^{Note4}$
resistance	R _{DS(on)}	_	6.8	10	mΩ	$I_D = -17.5 A$, $V_{GS} = -4.5 V^{Note4}$
Forward transfer admittance	y _{fs}		50	_	S	$I_D = -17.5A$, $V_{DS} = -10V^{Note4}$
Input capacitance	Ciss		4300	_	pF	V _{DS} = -10V
Output capacitance	Coss		930	_	pF	V _{GS} = 0
Reverse transfer capacitance	Crss	_	880	—	pF	f = 1MHz
Total gate charge	Qg	_	48	_	nc	V _{DD} = -10 V
Gate to source charge	Qgs	_	14	_	nc	V _{GS} = -4.5 V
Gate to drain charge	Qgd	_	20	_	nc	I _D = -35 A
Turn-on delay time	t _{d(on)}	_	21	_	ns	$V_{GS} = -10V, I_D = -17.5A$
Rise time	tr	_	45	_	ns	$V_{DD} \approx -10V$
Turn-off delay time	t _{d(off)}	_	115	_	ns	R _L = 0.57 Ω
Fall time	t _f	_	71	_	ns	R _g = 4.7 Ω
Body–drain diode forward voltage	V _{DF}	_	-0.87	-1.13	V	$IF = -35 A, V_{GS} = 0^{Note4}$
Body–drain diode reverse recovery time	t _{rr}		100	—	ns	IF =–35 A, V _{GS} = 0 diF/ dt = –100A/µs

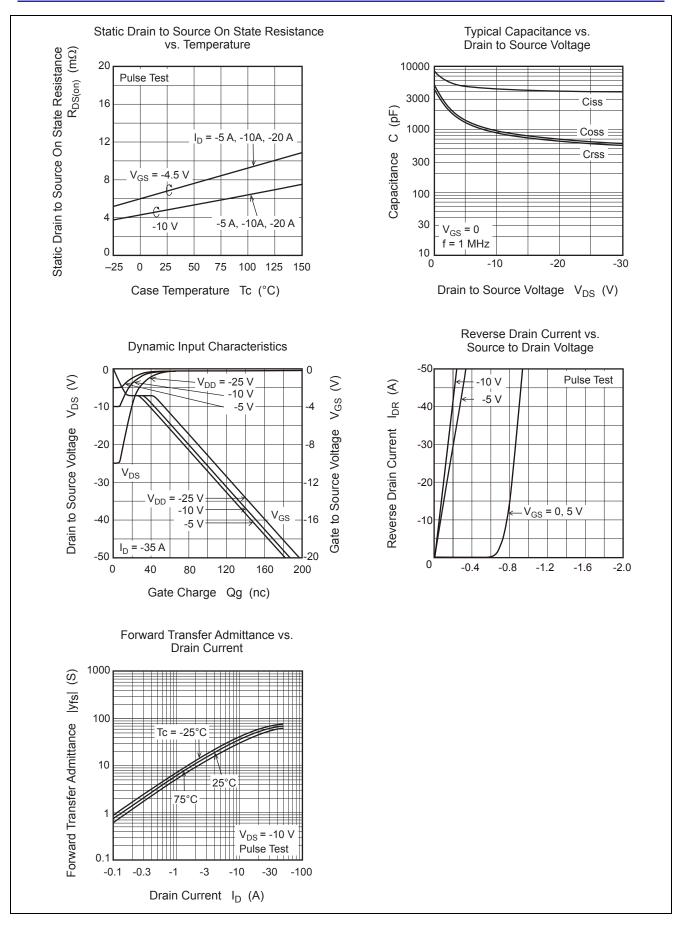
Notes: 4. Pulse test

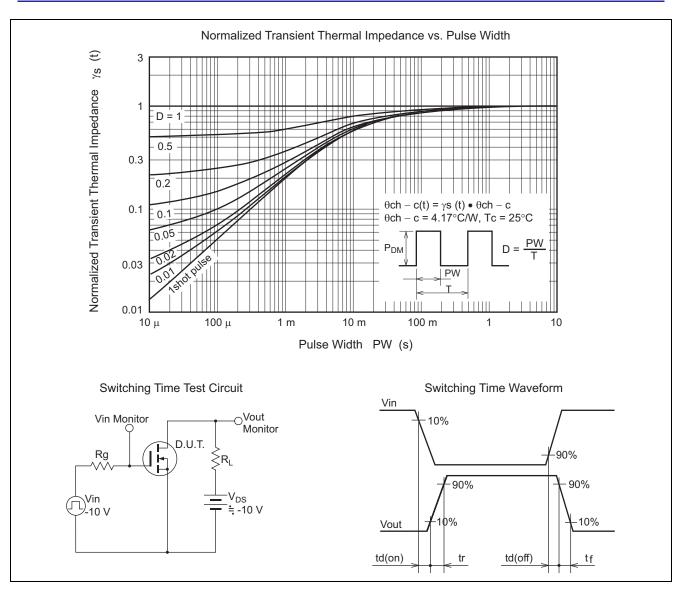


Main Characteristics



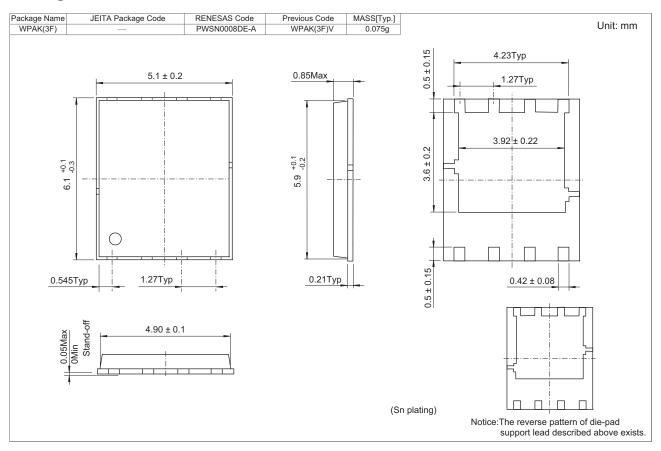








Package Dimensions



Ordering Information

Orderable Part Number	Quantity	Shipping Container
RJJ0315DPA-00-J5A	3000 pcs	Taping

Note: The symbol of 2nd "-" is occasionally presented as "#".



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