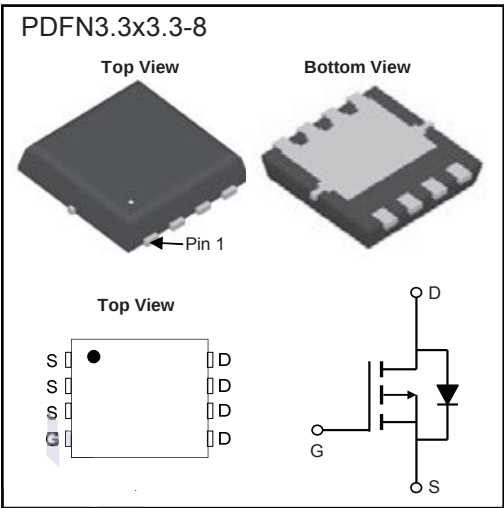


■ Features

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



■ 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	

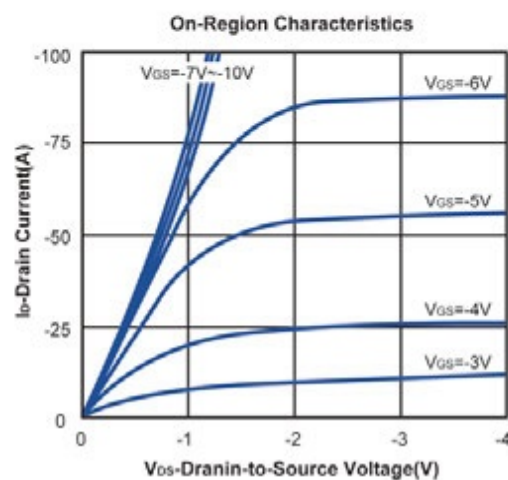
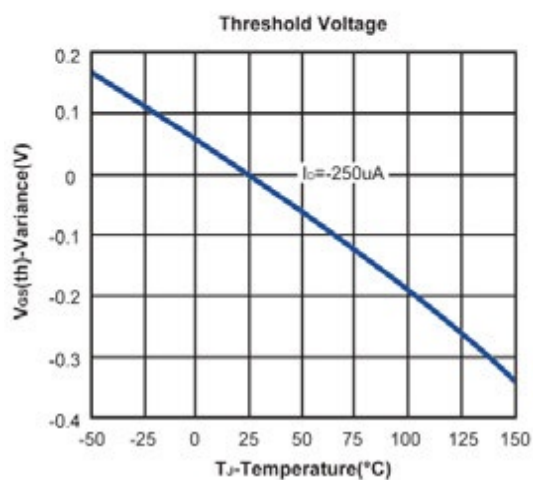
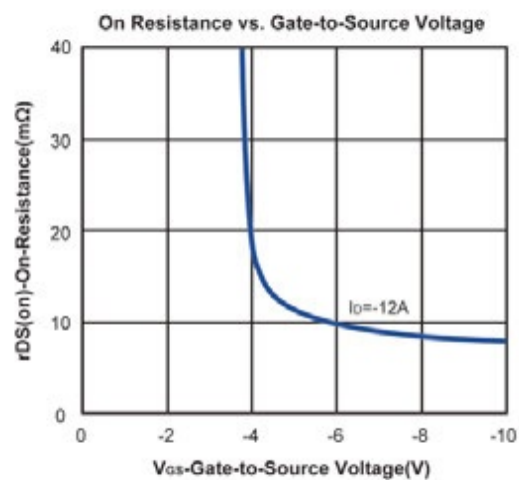
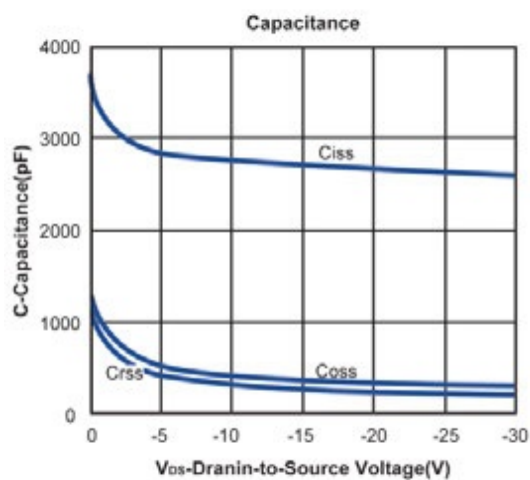
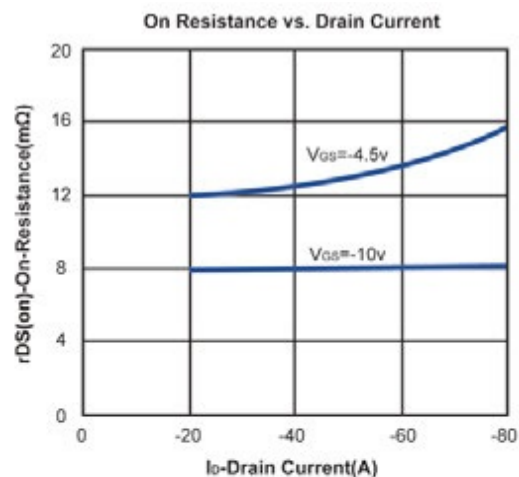
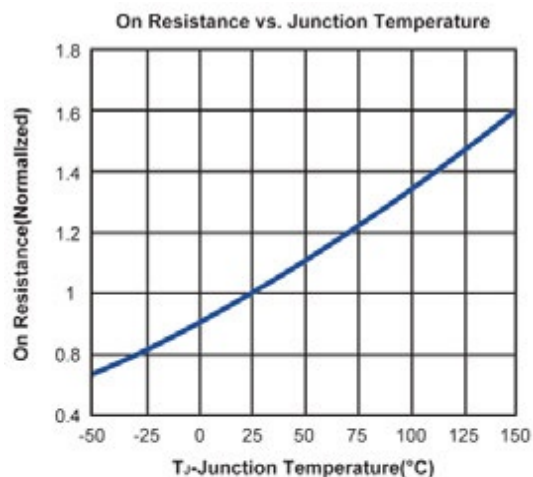
Note 1. The device mounted on 1in² FR4 board with 2 oz copper.

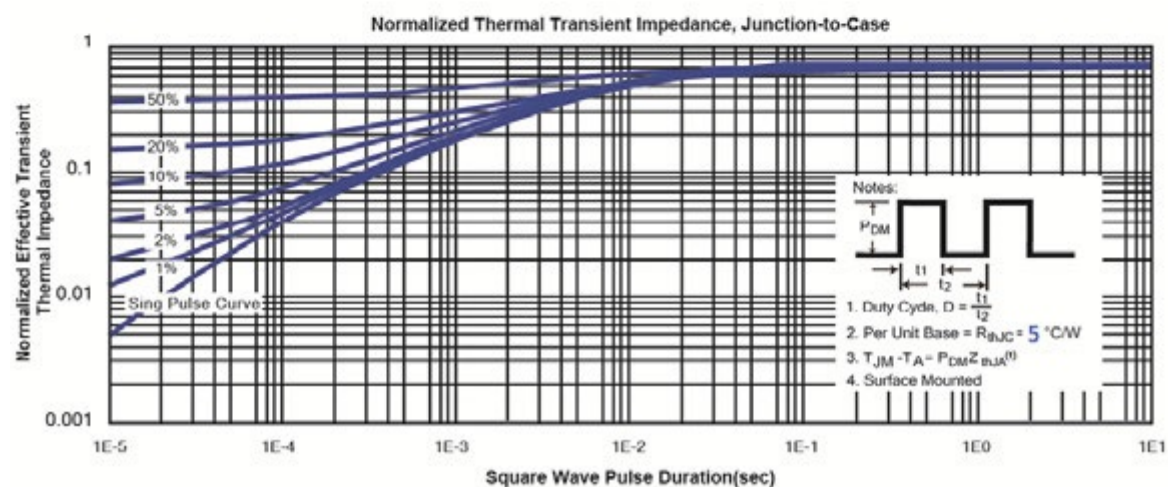
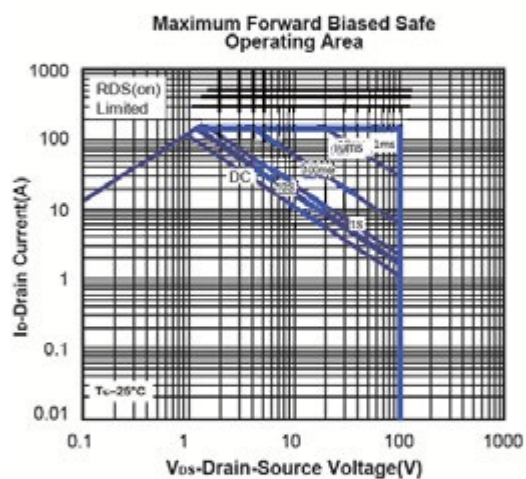
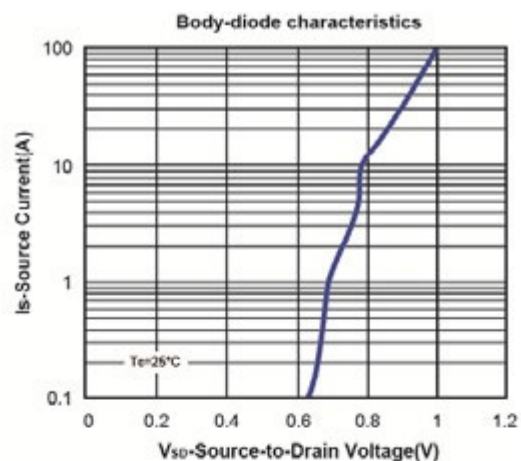
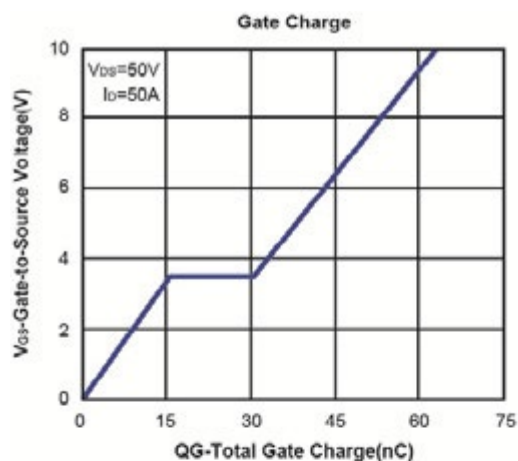
■ Electrical Characteristics (T_A = 25°C unless otherwise noted)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V _{DSS}	I _D =-250μA, V _{GS} =0V	-30			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =-24V, V _{GS} =0V			-1	μA
Gate-Body Leakage Current	I _{GSS}	V _{DS} =0V, V _{GS} =±20V			±100	nA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} , I _D =-250μA	-1.0		-2.5	V
Static Drain-Source On-Resistance (Note 1)	R _{DS(on)}	V _{GS} =-10V, I _D =-12A		8	12	mΩ
		V _{GS} =-4.5V, I _D =-9A		12	19	
Input Capacitance	C _{iss}	V _{GS} =0V, V _{DS} =-15V, f=1MHz		2690		pF
Output Capacitance	C _{oss}			371		
Reverse Transfer Capacitance	C _{rss}			293		
Turn-On Delay Time	t _{d(on)}	V _{DS} =-15V, R _L = 15 Ω V _{GS} = -10 V, R _{GEN} = 3.3 Ω		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} =-15V, I _D =-15A, V _{GS} = -4.5V		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 A, V _{GS} =0V			-1	V

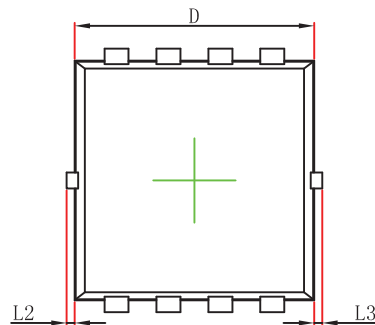
Note 1. Pulse Test: Pulse Width ≤ 300μs, Duty Cycle ≤ 2%.

■ Typical Characteristics

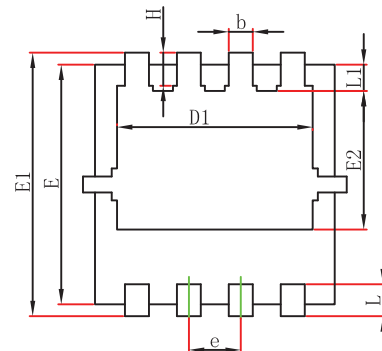




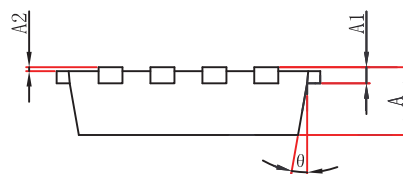
PDFN3.3x3.3-8 Package Outline Dimensions



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°