

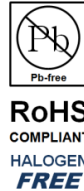
Dual P-Channel 20-V (D-S) MOSFET

Key Features:

- Low $r_{DS(on)}$ trench technology
- Low thermal impedance
- Fast switching speed

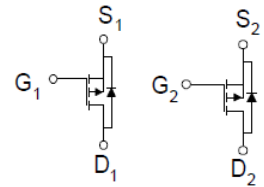
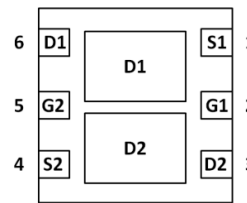
Typical Applications:

- Battery Powered Instruments
- Portable Computing
- Mobile Phones
- GPS Units and Media Players



PRODUCT SUMMARY		
V_{DS} (V)	$r_{DS(on)}$ (m Ω)	I_D (A)
-20	79 @ $V_{GS} = -4.5V$	-4.2
	110 @ $V_{GS} = -2.5V$	-3.6

DFN2x2-6L



P-Channel MOSFET

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ C$ UNLESS OTHERWISE NOTED)				
Parameter		Symbol	Limit	Units
Drain-Source Voltage		V_{DS}	-20	V
Gate-Source Voltage		V_{GS}	± 8	
Continuous Drain Current ^a	$T_A = 25^\circ C$	I_D	-4.2	A
	$T_A = 70^\circ C$		-3.3	
Pulsed Drain Current ^b		I_{DM}	-10	
Continuous Source Current (Diode Conduction) ^a		I_S	-2.3	A
Power Dissipation ^a	$T_A = 25^\circ C$	P_D	2.1	W
	$T_A = 70^\circ C$		1.3	
Operating Junction and Storage Temperature Range		T_J, T_{stg}	-55 to 150	$^\circ C$

THERMAL RESISTANCE RATINGS				
Parameter		Symbol	Maximum	Units
Maximum Junction-to-Ambient ^a	$t \leq 10$ sec	$R_{\theta JA}$	60	$^\circ C/W$
	Steady State		110	

Notes

- a. Surface Mounted on 1" x 1" FR4 Board.
- b. Pulse width limited by maximum junction temperature

Electrical Characteristics

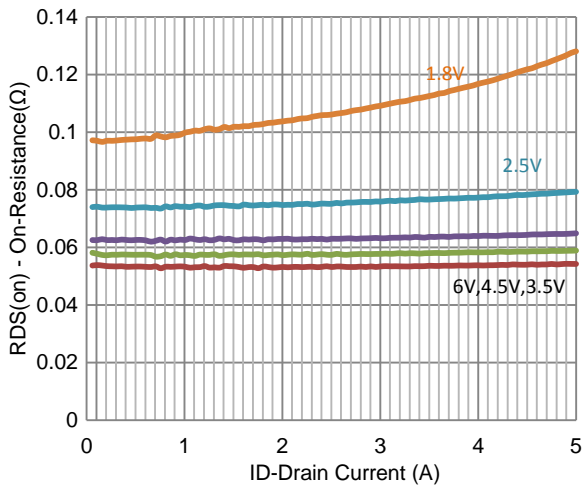
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Static						
Gate-Source Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = -250 \mu A$	-0.4			V
Gate-Body Leakage	I_{GSS}	$V_{DS} = 0 V, V_{GS} = \pm 8 V$			± 100	nA
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -16 V, V_{GS} = 0 V$			1	uA
		$V_{DS} = -16 V, V_{GS} = 0 V, T_J = 55^\circ C$			10	
On-State Drain Current	$I_{D(on)}$	$V_{DS} = -5 V, V_{GS} = -4.5 V$	-10			A
Drain-Source On-Resistance	$r_{DS(on)}$	$V_{GS} = -4.5 V, I_D = -3.4 A$			79	m Ω
		$V_{GS} = -2.5 V, I_D = -2.9 A$			110	
Forward Transconductance	g_{fs}	$V_{DS} = -15 V, I_D = -3.4 A$		10		S
Diode Forward Voltage	V_{SD}	$I_S = -1.2 A, V_{GS} = 0 V$		-0.74		V
Dynamic						
Total Gate Charge	Q_g	$V_{DS} = -10 V, V_{GS} = -4.5 V,$ $I_D = -3.4 A$		7.6		nC
Gate-Source Charge	Q_{gs}			1.5		
Gate-Drain Charge	Q_{gd}			2.5		
Turn-On Delay Time	$t_{d(on)}$	$V_{DD} = -10 V, R_L = 2.9 \Omega, I_D = -3.4 A,$ $V_{GEN} = -4.5 V, R_{GEN} = 6 \Omega$		7		ns
Rise Time	t_r			21		
Turn-Off Delay Time	$t_{d(off)}$			31		
Fall Time	t_f			22		
Input Capacitance	C_{iss}	$V_{DS} = -15 V, V_{GS} = 0 V, f = 1 MHz$		677		pF
Output Capacitance	C_{oss}			92		
Reverse Transfer Capacitance	C_{rss}			80		

Notes

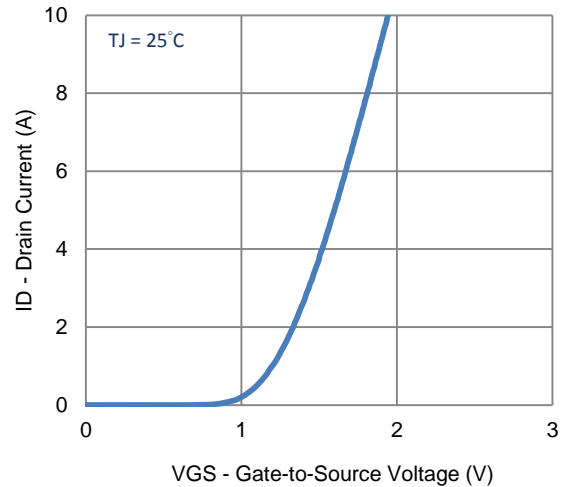
- Pulse test: $PW \leq 300 \mu s$ duty cycle $\leq 2\%$.
- Guaranteed by design, not subject to production testing.

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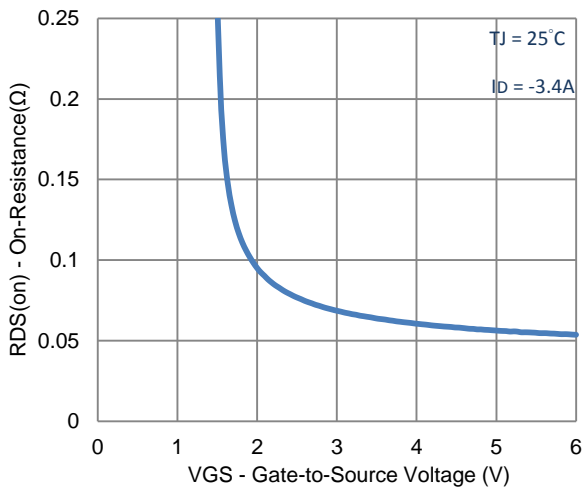
Typical Electrical Characteristics



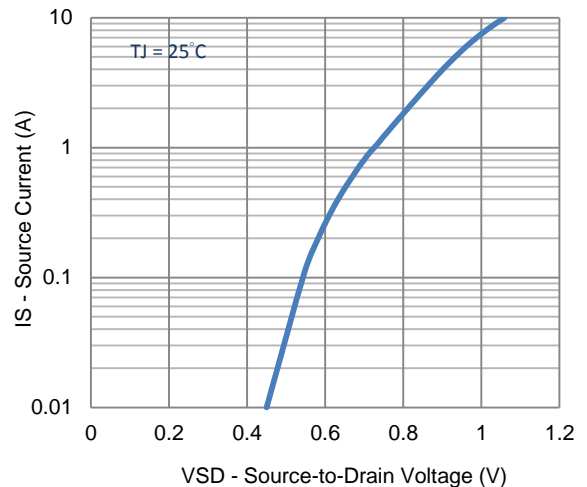
1. On-Resistance vs. Drain Current



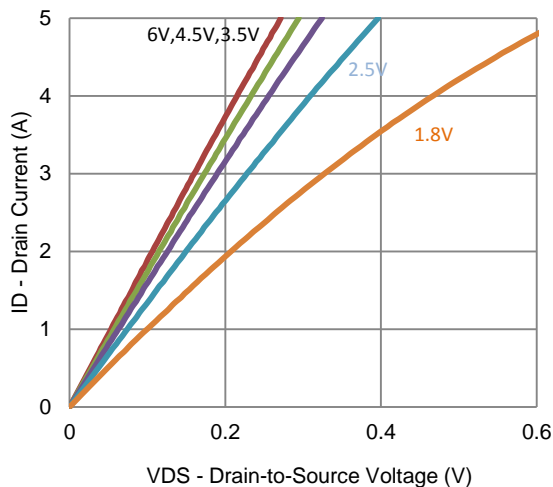
2. Transfer Characteristics



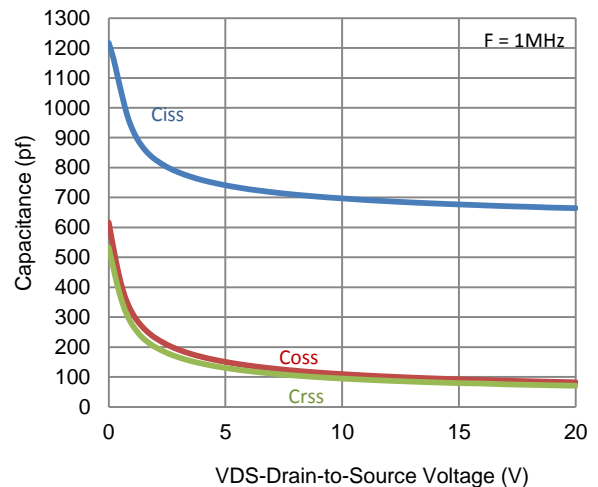
3. On-Resistance vs. Gate-to-Source Voltage



4. Drain-to-Source Forward Voltage

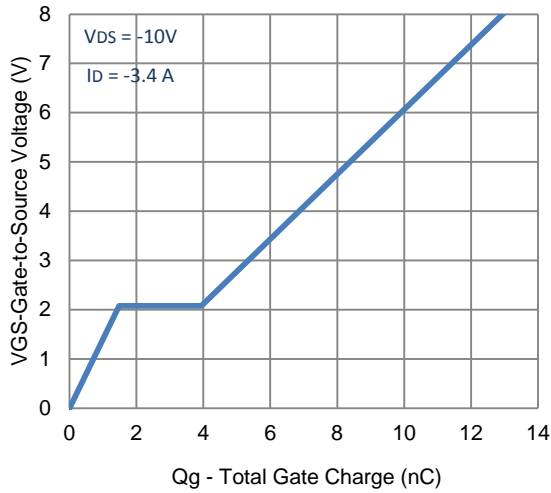


5. Output Characteristics



6. Capacitance

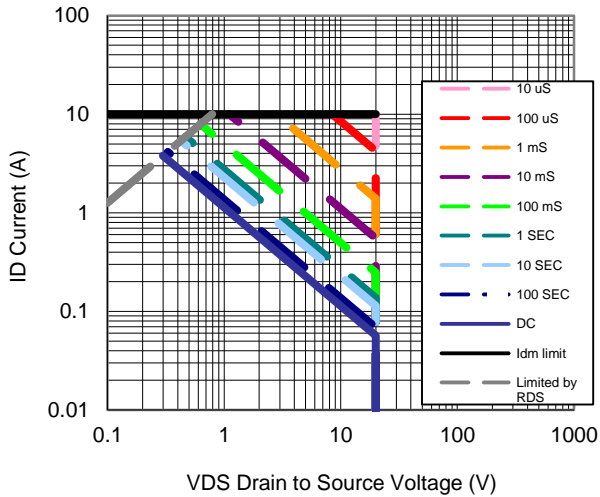
Typical Electrical Characteristics



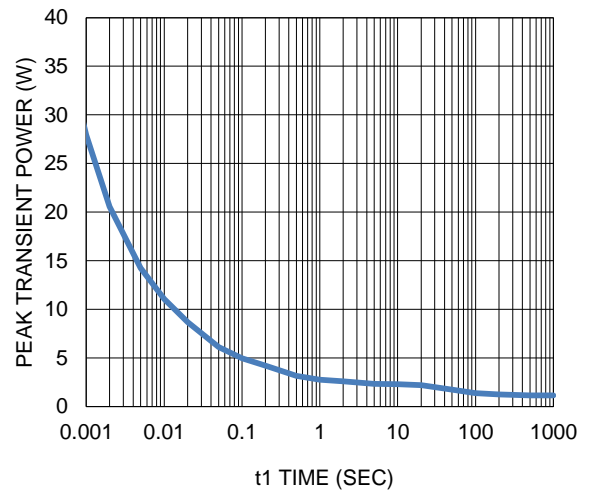
7. Gate Charge



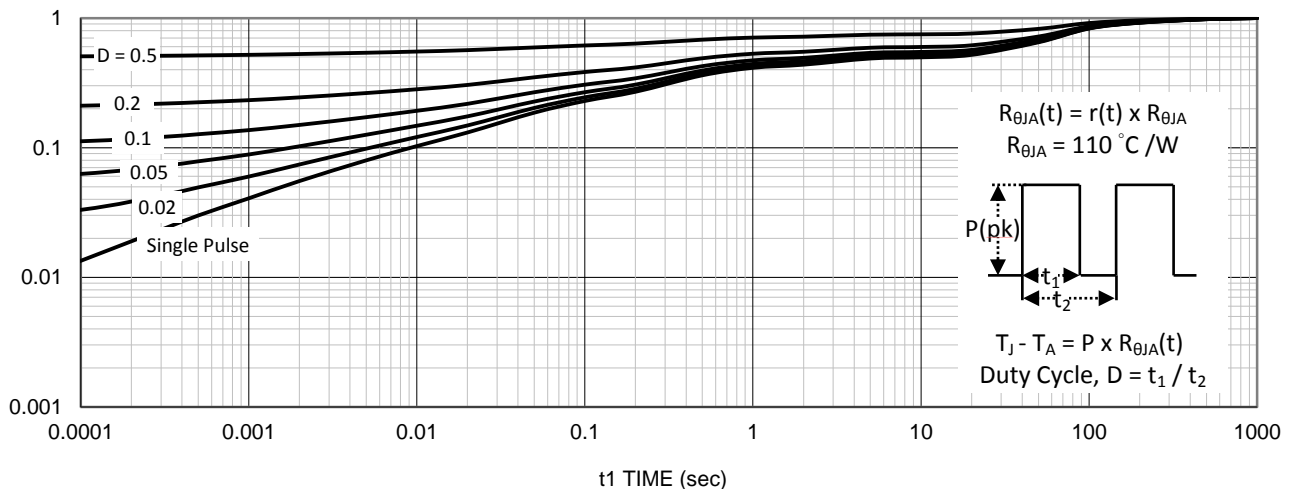
8. Normalized On-Resistance Vs Junction Temperature



9. Safe Operating Area

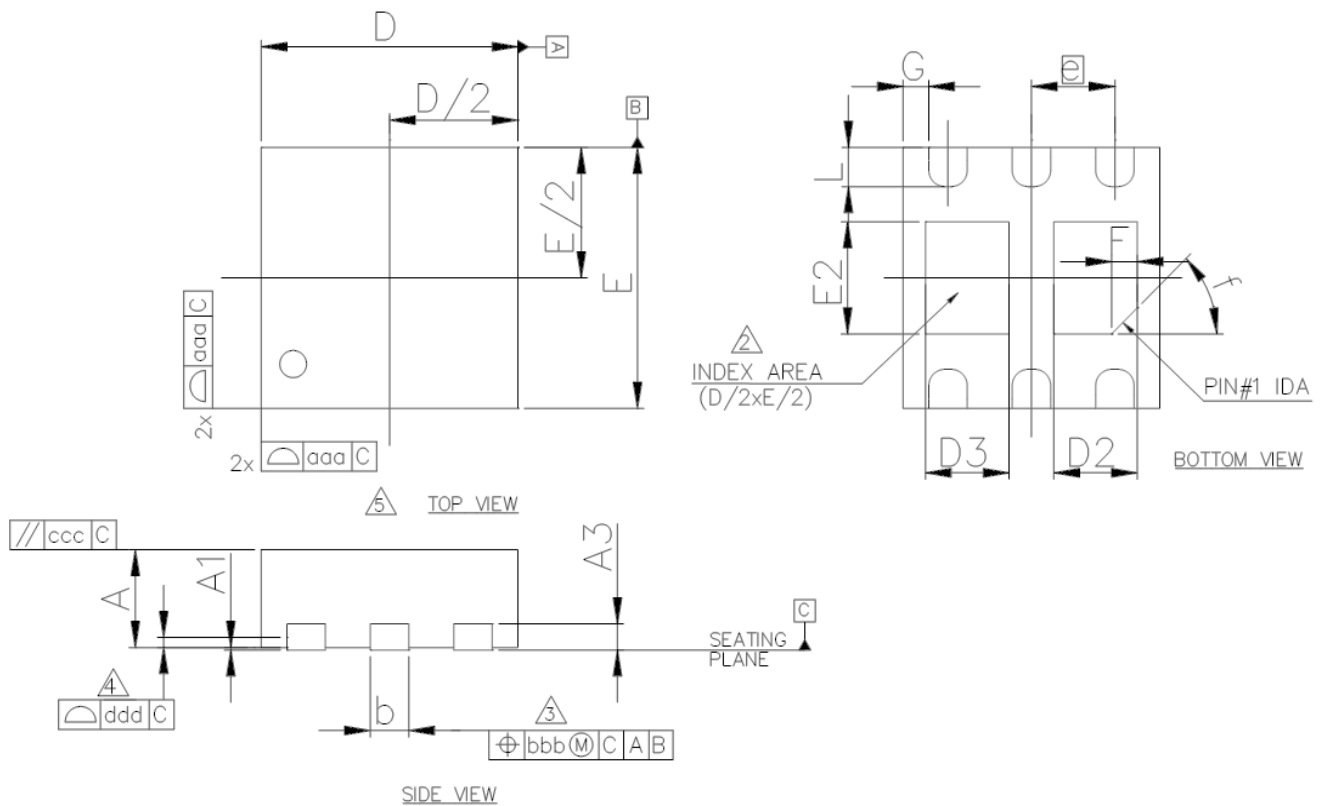


10. Single Pulse Maximum Power Dissipation



11. Normalized Thermal Transient Junction to Ambient

Package Information



SYMBOL	DIMENSIONS IN MILLIMETERS			DIMENSIONS IN INCHES		
	MIN.	NOM.	MAX.	MIN.	NOM.	MAX.
A	0.70	0.75	0.80	0.028	0.030	0.032
A1	0.00	0.02	0.05	0.000	0.001	0.002
A3	---	0.20 ref	---	---	0.008 ref	---
b	0.25	0.30	0.35	0.010	0.012	0.014
D	2.00 BSC			0.079 BSC		
D2	0.60	0.65	0.70	0.024	0.026	0.028
D3	0.60	0.65	0.70	0.024	0.026	0.028
E	2.00 BSC			0.079 BSC		
E2	0.81	0.86	0.91	0.032	0.034	0.036
⌀	0.65 BSC			0.026 BSC		
L	0.25	0.30	0.35	0.010	0.012	0.014
F	0.20 REF			0.008 REF		
f	45°			45°		
G	0.15	0.20	0.25	0.006	0.008	0.010
aaa	0.15			0.006		
bbb	0.10			0.004		

单击下面可查看定价，库存，交付和生命周期等信息

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