

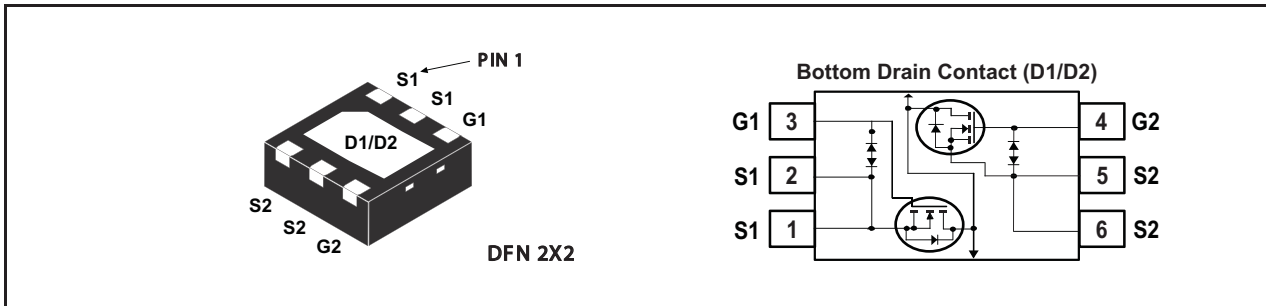


Dual N-Channel Enhancement Mode Field Effect Transistor

PRODUCT SUMMARY		
VDSS	ID	RDS(ON) (mΩ) Max
20V	6A	22.0 @ VGS=4.5V
		22.5 @ VGS=4.0V
		23.0 @ VGS=3.7V
		25.0 @ VGS=3.1V
		29.0 @ VGS=2.5V

FEATURES

- Super high dense cell design for low RDS(ON).
- Rugged and reliable.
- Surface Mount Package.
- ESD Protected.



ABSOLUTE MAXIMUM RATINGS (TA=25°C unless otherwise noted)

Symbol	Parameter	Limit	Units
V _{DS}	Drain-Source Voltage	20	V
V _{GS}	Gate-Source Voltage	±12	V
I _D	Drain Current-Continuous ^c	T _A =25°C	6
		T _A =70°C	4.8
I _{DM}	-Pulsed ^{a,c}	36	A
P _D	Maximum Power Dissipation	T _A =25°C	1.4
		T _A =70°C	0.9
T _J , T _{STG}	Operating Junction and Storage Temperature Range	-55 to 150	°C

THERMAL CHARACTERISTICS

R _{θJA}	Thermal Resistance, Junction-to-Ambient	90	°C/W
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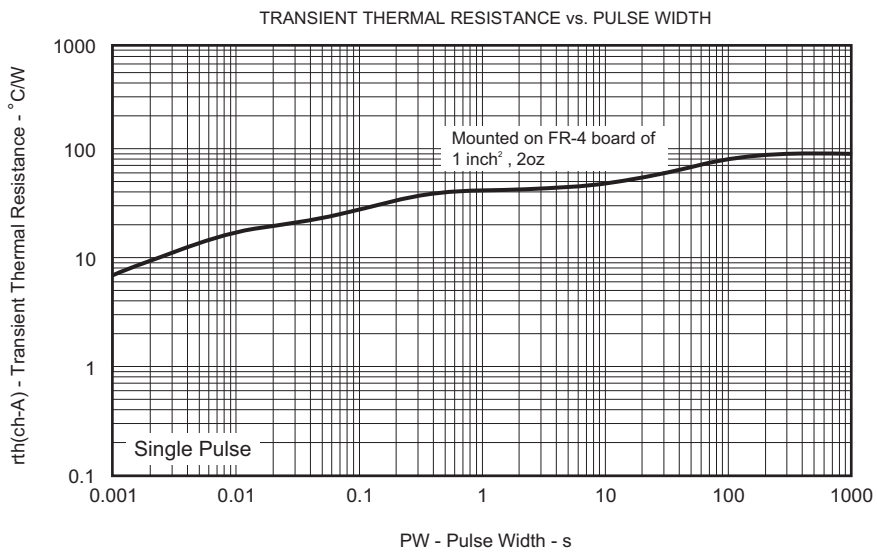
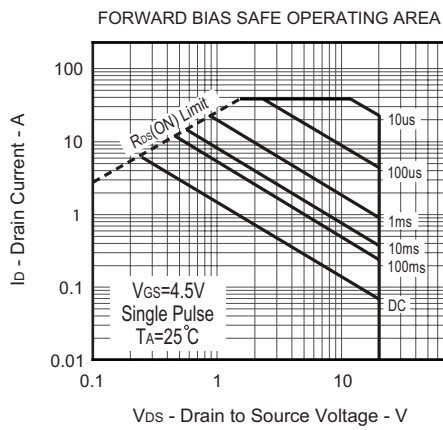
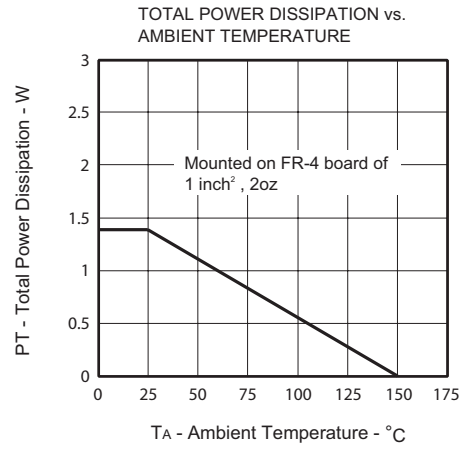
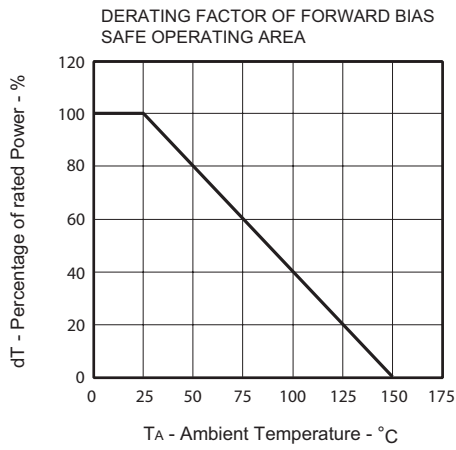
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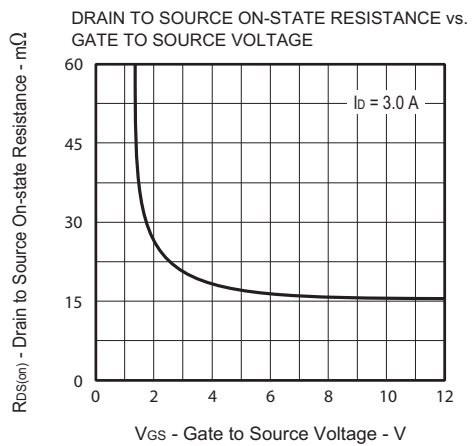
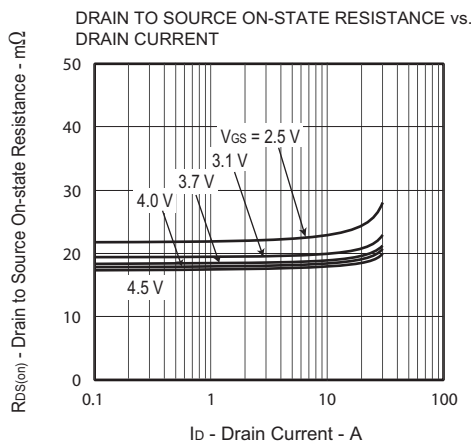
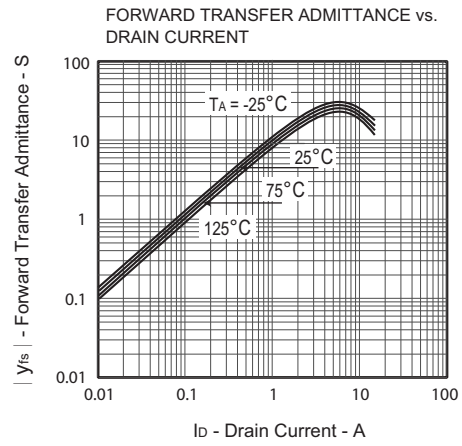
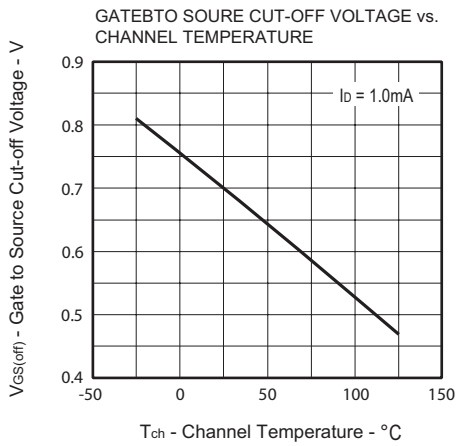
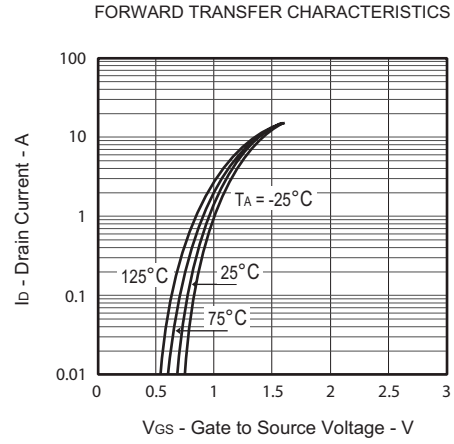
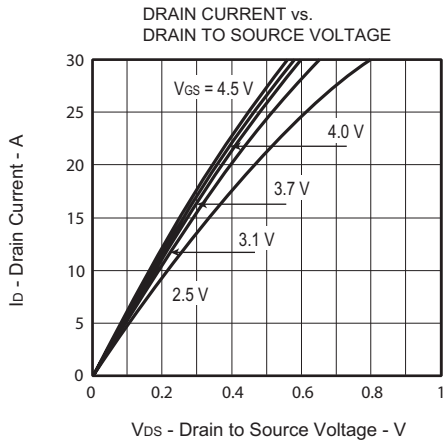
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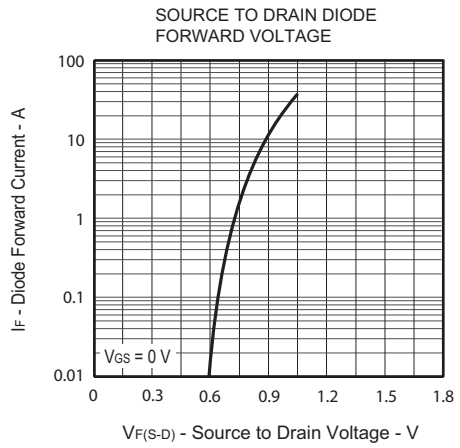
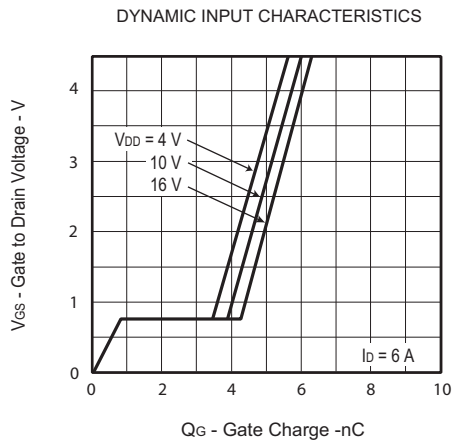
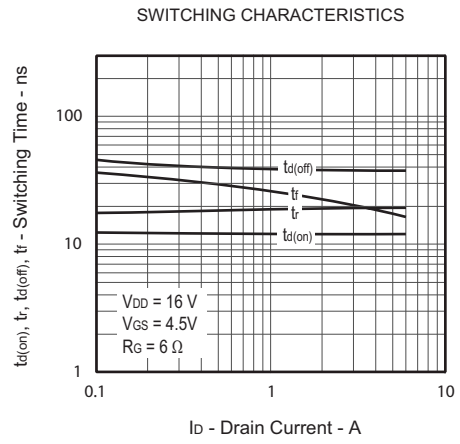
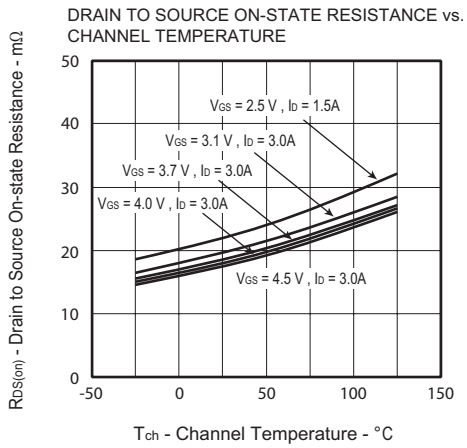
ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

Symbol	Parameter	Conditions	Min	Typ	Max	Units
OFF CHARACTERISTICS						
BV _{DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V , I _D =250μA	20			V
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =16V , V _{GS} =0V			1	μA
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±8V , V _{DS} =0V			±1	μA
ON CHARACTERISTICS						
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =V _{GS} , I _D =1.0mA	0.5	0.7	1.5	V
R _{DS(ON)}	Drain-Source On-State Resistance	V _{GS} =4.5V , I _D =3.0A	14.0	17.5	22.0	m ohm
		V _{GS} =4.0V , I _D =3.0A	14.5	18.0	22.5	m ohm
		V _{GS} =3.7V , I _D =3.0A	15.0	18.5	23.0	m ohm
		V _{GS} =3.1V , I _D =3.0A	15.5	19.5	25.0	m ohm
		V _{GS} =2.5V , I _D =1.5A	17.5	22.0	29.0	m ohm
g _{FS}	Forward Transconductance	V _{DS} =5V , I _D =3A		20		S
SWITCHING CHARACTERISTICS ^b						
t _{D(ON)}	Turn-On Delay Time	V _{DD} =16V I _D =3A V _{GS} =4.5V R _{GEN} = 6 ohm		11		ns
t _r	Rise Time			19		ns
t _{D(OFF)}	Turn-Off Delay Time			36		ns
t _f	Fall Time			21		ns
Q _g	Total Gate Charge				6.3	
Q _{gs}	Gate-Source Charge	V _{DS} =16V, I _D =6A, V _{GS} =4.5V		0.83		nC
Q _{gd}	Gate-Drain Charge			3.4		nC
DRAIN-SOURCE DIODE CHARACTERISTICS AND MAXIMUM RATINGS						
V _{SD}	Diode Forward Voltage	V _{GS} =0V, I _S =6A		0.86	1.2	V
Notes a. Pulse Test: Pulse Width ≤ 10μs, Duty Cycle ≤ 1%. b. Guaranteed by design, not subject to production testing. c. Drain current limited by maximum junction temperature. d. Mounted on FR4 Board of 1 inch ² , 2oz.						

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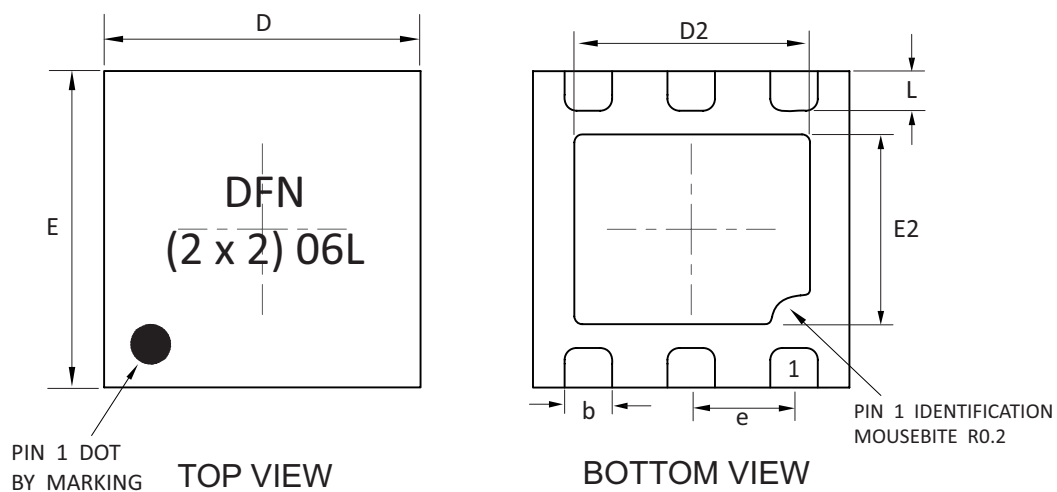






PACKAGE OUTLINE DIMENSIONS

DFN 2x2-6L



SYMBOLS	MILLIMETERS		
	MIN	NOM	MAX
A	0.70	0.75	0.80
A1	0.00	—	0.05
A3	0.2 REF.		
D	1.95	2.00	2.05
E	1.95	2.00	2.05
D2	1.35	1.50	1.60
E2	0.65	0.80	0.90
b	0.25	0.30	0.35
L	0.25	0.35	0.45
e	0.65 BSC.		