



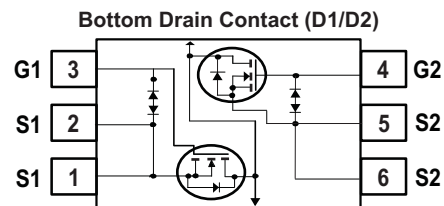
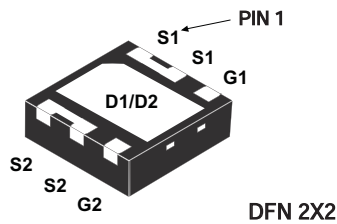
Dual N-Channel Enhancement Mode Field Effect Transistor

PRODUCT SUMMARY

V _{DSS}	I _D	R _{DS(ON)} (mΩ) Typ
20V	6A	18.0 @ V _{GS} =4.5V
		18.5 @ V _{GS} =4.0V
		20.0 @ V _{GS} =3.7V
		22.0 @ V _{GS} =3.1V
		27.0 @ V _{GS} =2.5V

FEATURES

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



ABSOLUTE MAXIMUM RATINGS (T_A=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
------------------	---	----	------

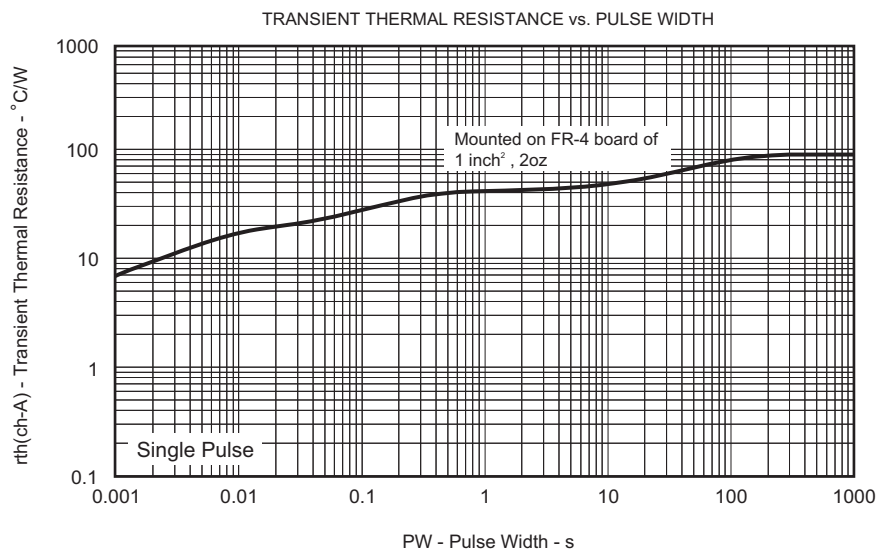
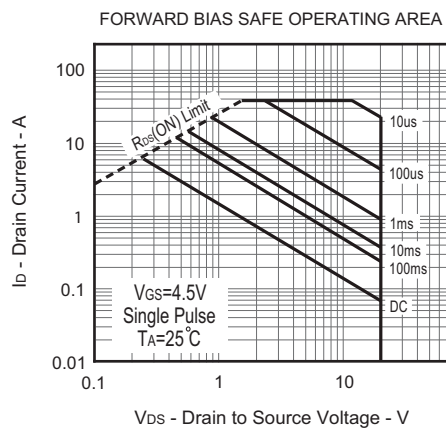
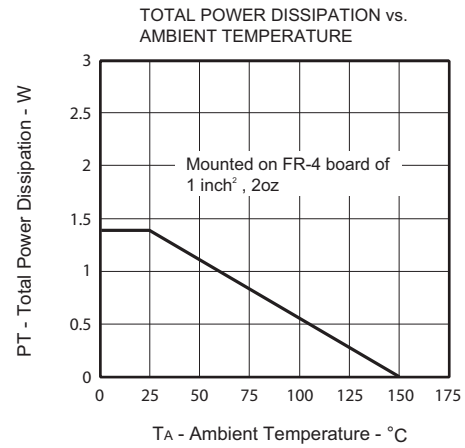
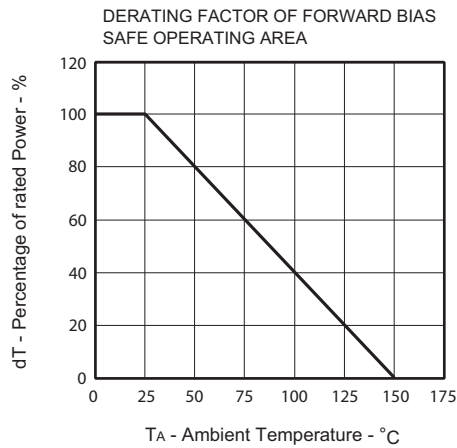
STF8236

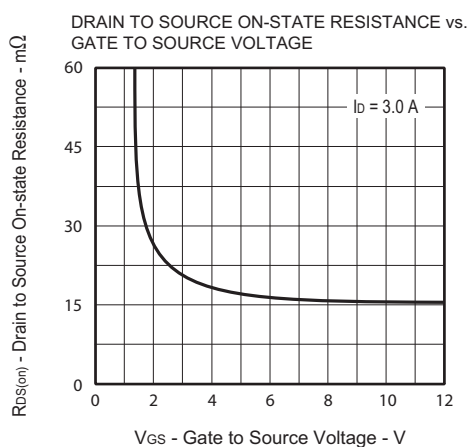
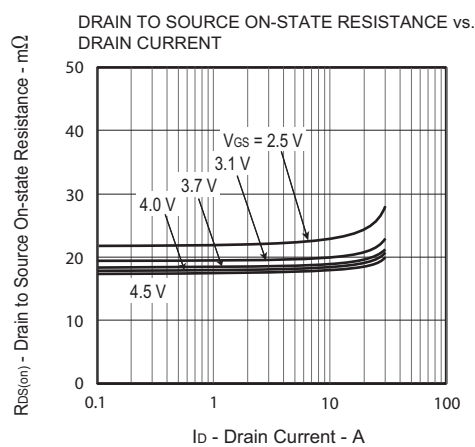
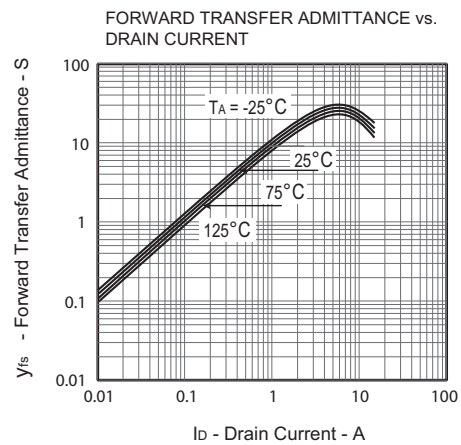
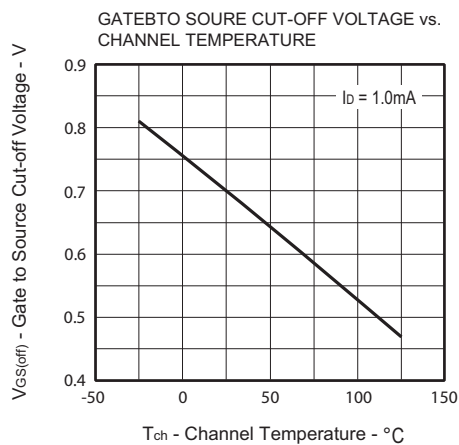
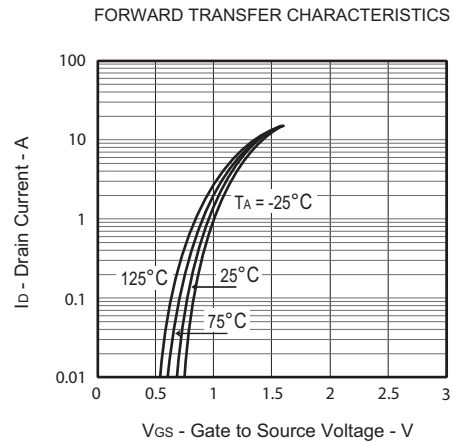
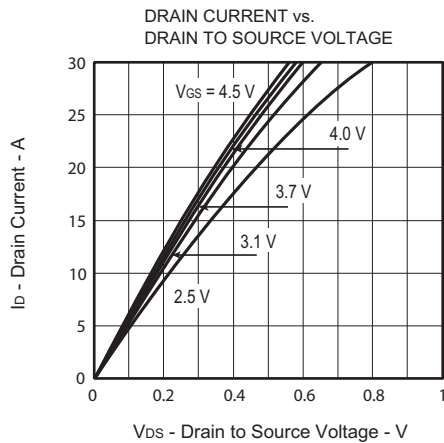
Ver 2.2

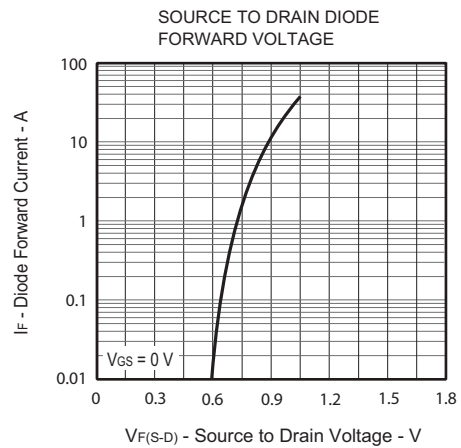
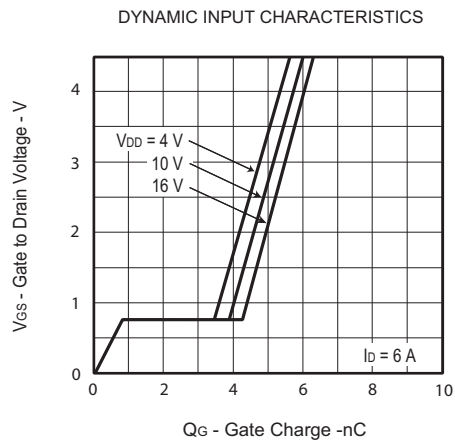
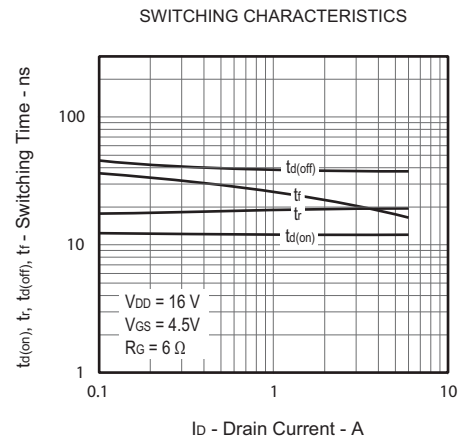
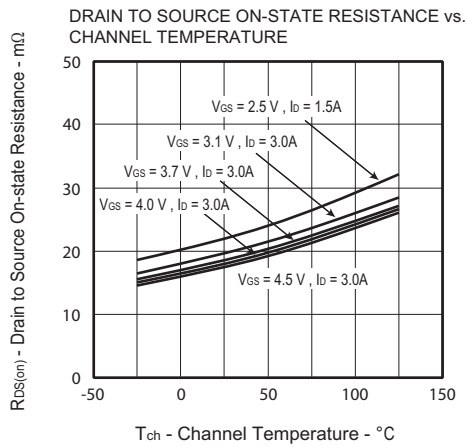
ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

Symbol	Parameter	Conditions	Min	Typ	Max	Units
OFF CHARACTERISTICS						
BV _{DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V , I _D =250uA	20			V
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =16V , V _{GS} =0V			1	uA
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±8V , V _{DS} =0V			±1	uA
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	14.5	18.0	22.5	m ohm
		V _{GS} =4.0V , I _D =3.0A	15.0	18.5	23.0	m ohm
		V _{GS} =3.7V , I _D =3.0A	16.0	20.0	24.0	m ohm
		V _{GS} =3.1V , I _D =3.0A	18.0	22.0	26.0	m ohm
		V _{GS} =2.5V , I _D =1.5A	21.0	27.0	33.0	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	V _{DS} =16V,I _D =6A, V _{GS} =4.5V		6.3		nC
Q _{gs}	Gate-Source Charge			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 ≤ 10us, 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.						

Jan,16,2023

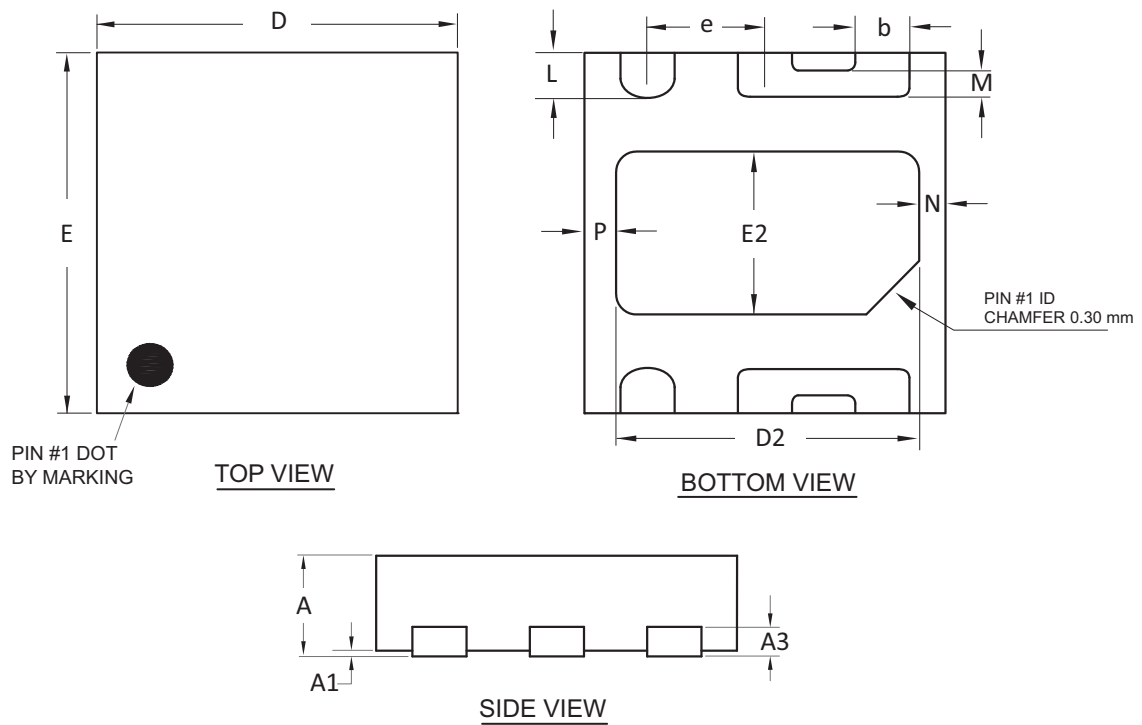






PACKAGE OUTLINE DIMENSIONS

DFN 2x2-6L



SYMBOLS	MILLIMETERS			INCHES		
	MIN.	NOM.	MAX.	MIN.	NOM.	MAX.
A	—	0.550	0.600	—	0.022	0.024
A1	0.000	—	0.050	0.000	—	0.002
A3	0.150 BSC			0.006 BSC		
D	1.950	2.000	2.050	0.077	0.079	0.081
E	1.950	2.000	2.050	0.077	0.079	0.081
D2	1.625	1.675	1.725	0.064	0.066	0.068
E2	0.850	0.900	0.950	0.033	0.035	0.037
L	0.250 BSC			0.010 BSC		
b	0.250	0.300	0.350	0.010	0.012	0.014
e	0.650 BSC			0.026 BSC		
M	0.150 BSC			0.006 BSC		
N	0.150 BSC			0.006 BSC		
P	0.175 BSC			0.007 BSC		

TOP MARKING DEFINITION

DFN 2x2-6L

