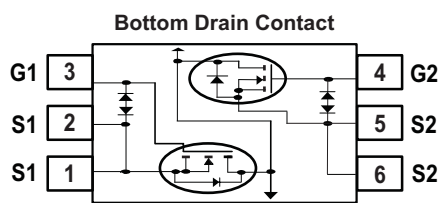
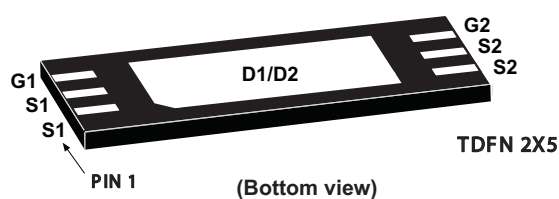


**Dual N-Channel Enhancement Mode Field Effect Transistor****PRODUCT SUMMARY**

VDSS	ID	RDS(ON) (mΩ) Max
24V	10A	10.0 @ VGS=4.5V
		10.5 @ VGS=4.0V
		11.0 @ VGS=3.7V
		12.0 @ VGS=3.1V
		15.5 @ VGS=2.5V

FEATURES

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

**ABSOLUTE MAXIMUM RATINGS** ($T_A=25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Limit	Units
V_{DS}	Drain-Source Voltage	24	V
V_{GS}	Gate-Source Voltage	± 12	V
I_D	Drain Current-Continuous ^a	$T_A=25^\circ\text{C}$	10
		$T_A=70^\circ\text{C}$	8
I_{DM}	-Pulsed ^b	48	A
P_D	Maximum Power Dissipation ^a	$T_A=25^\circ\text{C}$	1.67
		$T_A=70^\circ\text{C}$	1.07
T_J, T_{STG}	Operating Junction and Storage Temperature Range	-55 to 150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

$R_{\theta JA}$	Thermal Resistance, Junction-to-Ambient ^a	75	$^\circ\text{C/W}$
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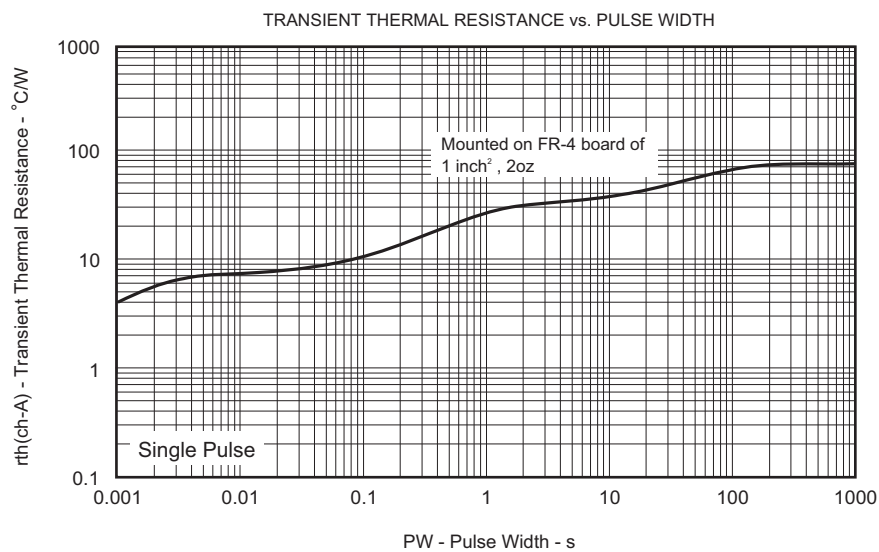
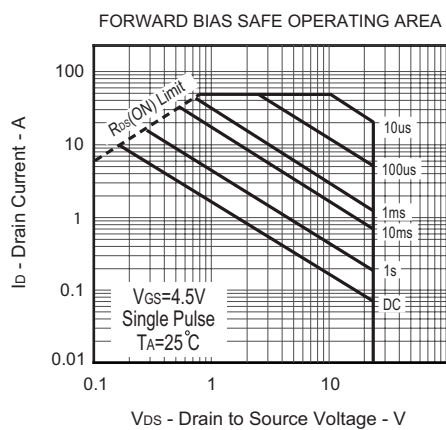
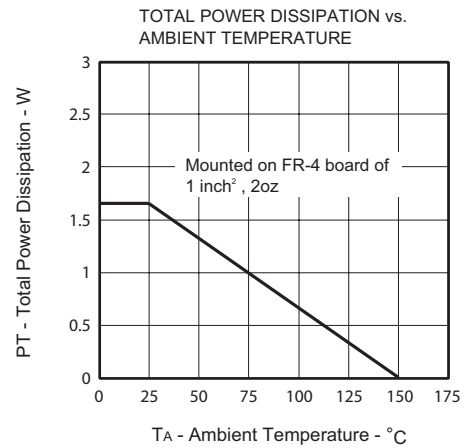
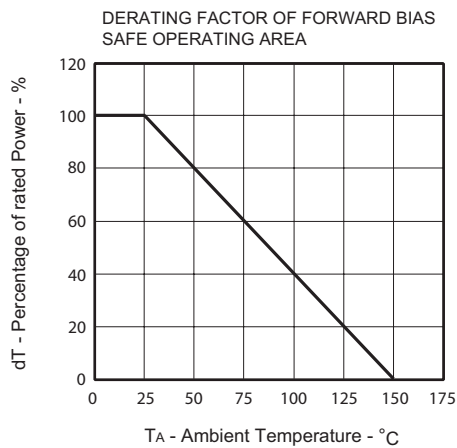
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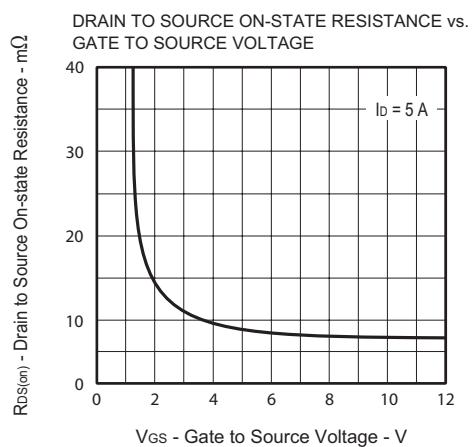
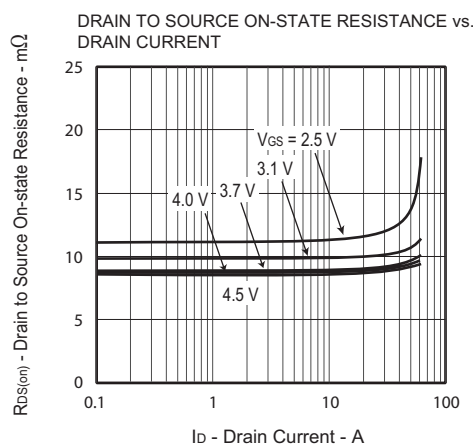
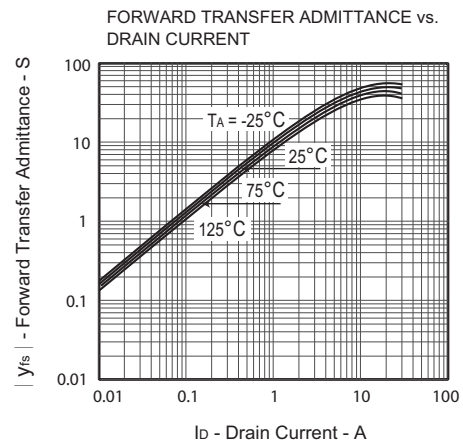
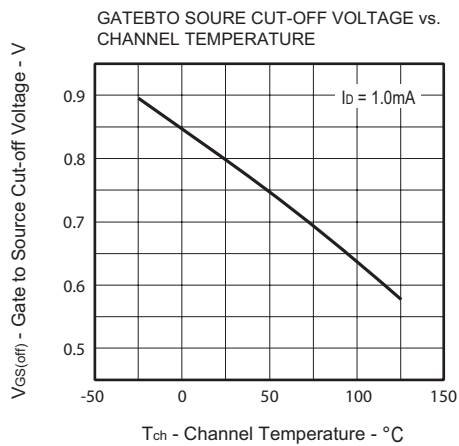
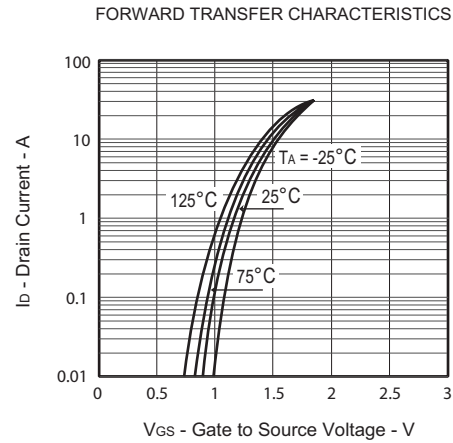
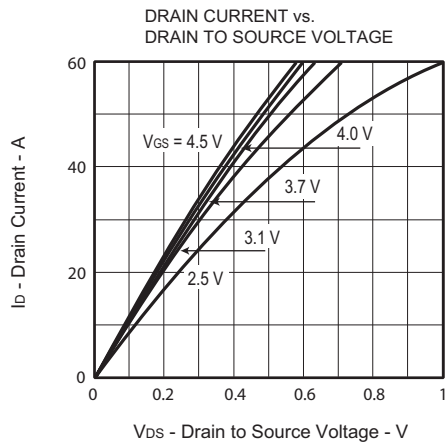
Ver 1.0

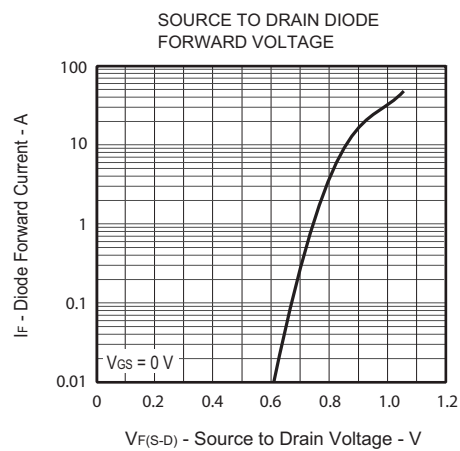
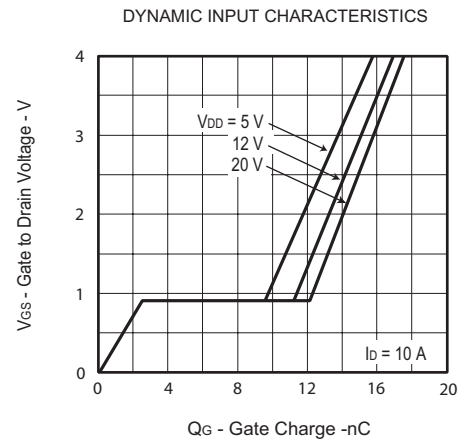
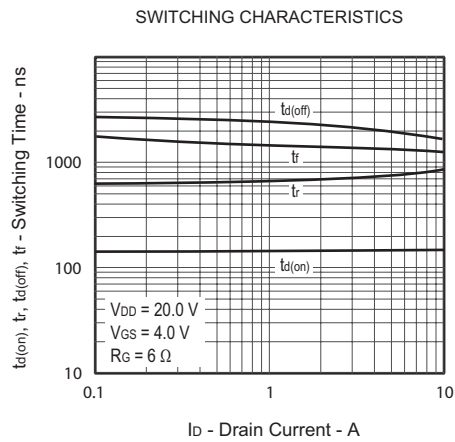
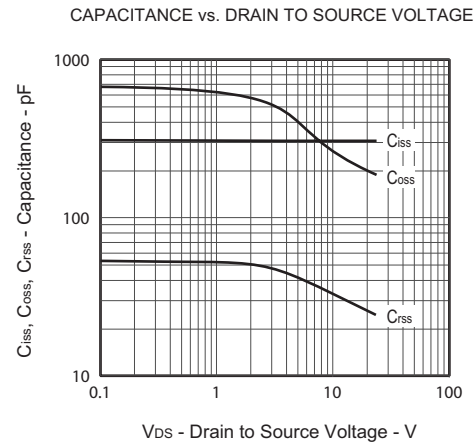
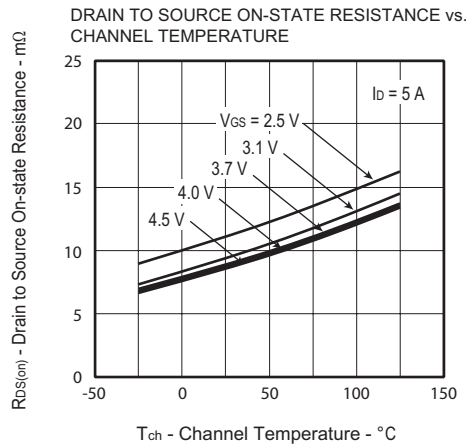
ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

Symbol	Parameter	Conditions	Min	Typ	Max	Units
OFF CHARACTERISTICS						
BV _{DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V , I _D =250uA	24			V
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =20V , V _{GS} =0V			1	uA
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±12V , V _{DS} =0V			±10	uA
ON CHARACTERISTICS						
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =V _{GS} , I _D =1.0mA	0.5	0.8	1.5	V
R _{DS(ON)}	Drain-Source On-State Resistance	V _{GS} =4.5V , I _D =5A	6.0	8.2	10.0	m ohm
		V _{GS} =4.0V , I _D =5A	6.3	8.5	10.5	m ohm
		V _{GS} =3.7V , I _D =5A	6.6	8.8	11.0	m ohm
		V _{GS} =3.1V , I _D =5A	7.0	9.5	12.0	m ohm
		V _{GS} =2.5V , I _D =5A	8.0	11.0	15.5	m ohm
g _{FS}	Forward Transconductance	V _{DS} =10V , I _D =5A		33		S
DYNAMIC CHARACTERISTICS ^c						
C _{iss}	Input Capacitance	V _{DS} =10V,V _{GS} =0V f=1.0MHz		320		pF
C _{OSS}	Output Capacitance			274		pF
C _{RSS}	Reverse Transfer Capacitance			34		pF
SWITCHING CHARACTERISTICS ^c						
t _{D(ON)}	Turn-On Delay Time	V _{DD} =20V I _D =5A V _{GS} =4.0V R _{GEN} =6 ohm		163		ns
t _r	Rise Time			755		ns
t _{D(OFF)}	Turn-Off Delay Time			2080		ns
t _f	Fall Time			1400		ns
Q _g	Total Gate Charge	V _{DS} =20V,I _D =10A, V _{GS} =4.0V		17.6		nC
Q _{gs}	Gate-Source Charge			2.5		nC
Q _{gd}	Gate-Drain Charge			9.6		nC
DRAIN-SOURCE DIODE CHARACTERISTICS AND MAXIMUM RATINGS						
V _{SD}	Diode Forward Voltage	V _{GS} =0V,I _S =10A		0.85	1.2	V
Notes						
a.Surface Mounted on FR4 Board,t ≤ 10sec.						
b.Pulse Test:Pulse Width ≤ 300us, Duty Cycle ≤ 2%.						
c.Guaranteed by design, not subject to production testing.						

Jun,16,2011







PACKAGE OUTLINE DIMENSIONS

