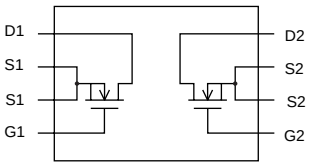
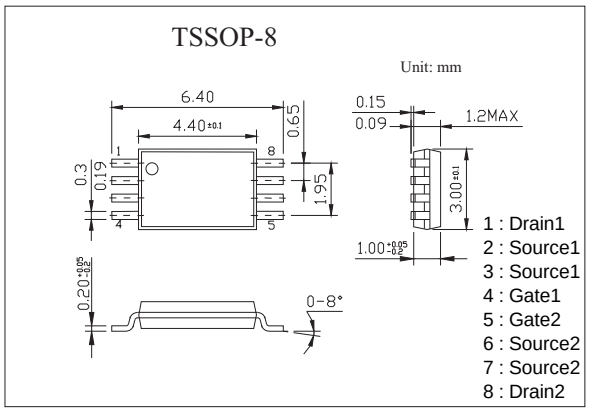
Dual N-Channel Enhancement Mode MOSFET

FTD2011

■ Features

- $R_{DS(ON)}$=30mΩ Max. @V_{GS}=4V
- $R_{DS(ON)}$=45mΩ Max. @V_{GS}=2.5V





■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	20	V
Gate-Source Voltage	V_{GS}	±10	V
Drain-Current -Continuous	I_D	5	A
-Pulsed (NOTE 1)	I_{DM}	20	A
Power Dissipation (NOTE 2)	P_D	1.3	W
Thermal Resistance,Junction- to-Ambient	$R_{\theta JA}$	96	℃/W
Operating Junction and Storage Temperature Range	Tj.Tstg	-55 to 150	℃

Note: 1. PW≤10μs, duty cycle≤1%

2. Mounted on a ceramic board (1000mm^2×0.8mm)

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■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{DSS}	V_{GS}=0V,I_D=1mA	20			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=20V,V_{GS}=0V			1	μA
Gate-Body Leakage	I_{GSS}	V_{GS}=±8V,V_{DS}=0V			±10	μA
Cutoff Voltage	$V_{GS(off)}$	V_{DS}=10V, I_D=1mA	0.5		1.3	V
Drain- Source on-state Resistance	$R_{DS(ON)}$	V_{GS}=4V,I_D=4A			30	mΩ
		V_{GS}=2.5V,I_D=2A			45	mΩ
On-State Drain Current	$I_{D(ON)}$	V_{DS}=5V,V_{GS}=4.5V	18			A
Forward Transconductance	g_{FS}	V_{DS}=5V,I_D=5A	5			S
Input Capacitance	C_{iss}	V_{DS} = 10V, V_{GS} = 0V,f =1.0MHZ		900		pF
Output Capacitance	C_{oss}			260		pF
Reverse Transfer Capacitance	C_{rss}			200		pF
Turn-On Delay Time	$t_{D(on)}$	V_{DD}=10V,I_D=4A,V_{GS}=4V, R_L=2.5Ω ,R_{GEN}=50Ω		15		ns
Rise Time	t_r			150		ns
Turn-Off Delay Time	$t_{D(off)}$			100		ns
Fall Time	t_f			150		ns
Total Gate Charge	Q_g	V_{DS} = 10V, I_D = 4A,V_{GS} = 10V		32		nC
Gate-S ource Charge	Q_{gs}			1.5		nC
Gate-Drain Charge	Q_{gd}			6		nC

■ Marking

Marking	2011