

# ZXM41N0F

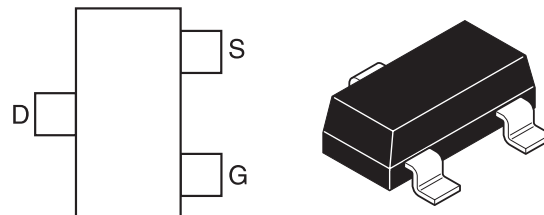
## SOT23 N-CHANNEL ENHANCEMENT MODE VERTICAL D MOSFET

### FEATURES

- $BV_{DSS} = 100V$
- Low Threshold

### DEVICE MARKING

- 410



### ABSOLUTE MAXIMUM RATINGS

### PINOUT TOP VIEW

### SOT23

PARAMETER	SYMBOL	VALUE	UNIT
Drain-source voltage	$V_{DS}$	100	V
Drain-gate voltage	$V_{DGR}$	100	V
Continuous drain current at $T_{amb}=25^{\circ}C$	$I_D$	170	mA
Pulsed drain current	$I_{DM}$	680	mA
Gate-source voltage	$V_{GS}$	$\pm 20$	V
Power dissipation at $T_{amb}=25^{\circ}C$	$P_{tot}$	360	mW
Operating and storage temperature range	$T_j; T_{stg}$	-55 to +150	$^{\circ}C$

### ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}C$ unless otherwise stated)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS
Drain-source breakdown voltage	$BV_{DSS}$	100			V	$I_D=0.25mA, V_{GS}=0V$
Gate-source threshold voltage	$V_{GS(th)}$	0.5		1.5	V	$I_D=1mA, V_{DS}=V_{GS}$
Gate-body leakage	$I_{GSS}$			50	nA	$V_{GS}=\pm 20V, V_{DS}=0V$
Zero gate voltage drain current	$I_{DSS}$			500	nA	$V_{DS}=100V, V_{GS}=0V$
Static drain-source on-state resistance <sup>(1)</sup>	$R_{DS(on)}$			8 12	$\Omega$	$V_{GS}=4.5V, I_D=150mA$ $V_{GS}=3V, I_D=50mA$
Forward transconductance <sup>(1)(2)</sup>	$g_{fs}$	80			mS	$V_{DS}=25V, I_D=100mA$
Input capacitance <sup>(2)</sup>	$C_{iss}$		25		pF	$V_{DS}=25V, V_{GS}=0V, f=1MHz$
Common source output capacitance <sup>(2)</sup>	$C_{oss}$		9		pF	
Reverse transfer capacitance <sup>(2)</sup>	$C_{rss}$		4		pF	
Turn-on delay time <sup>(2)(3)</sup>	$t_{d(on)}$		10		ns	$V_{DD}=30V, I_D=280mA$
Rise time <sup>(2)(3)</sup>	$t_r$		10		ns	
Turn-off delay time <sup>(2)(3)</sup>	$t_{d(off)}$		15		ns	
Fall time <sup>(2)(3)</sup>	$t_f$		25		ns	

### NOTES:

<sup>(1)</sup> Measured under pulsed conditions. Width=300 $\mu$ s. Duty cycle  $\leq 2\%$  <sup>(2)</sup> Sample test.

<sup>(3)</sup> Switching times measured with 50 $\Omega$  source impedance and <5ns rise time on a pulse generator