

ZXM41N10F

SOT23 N-CHANNEL ENHANCEMENT MODE VERTICAL D MOSFET

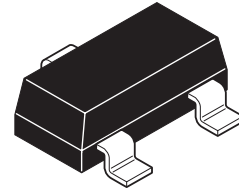
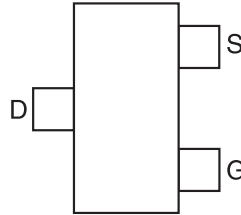
FEATURES

- $BV_{DSS} = 100V$

- 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}	± 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 ⁽¹⁾	$R_{DS(on)}$			8 12	Ω	$V_{GS}=4.5V, I_D=150mA$ $V_{GS}=3V, I_D=50mA$
Forward transconductance ⁽¹⁾⁽²⁾	g_{fs}	80			mS	$V_{DS}=25V, I_D=100mA$
Input capacitance ⁽²⁾	C_{iss}		25		pF	$V_{DS}=25V, V_{GS}=0V, f=1MHz$
Common source output capacitance ⁽²⁾	C_{oss}		9		pF	
Reverse transfer capacitance ⁽²⁾	C_{rss}		4		pF	
Turn-on delay time ⁽²⁾⁽³⁾	$t_{d(on)}$		10		ns	$V_{DD}=30V, I_D=280mA$
Rise time ⁽²⁾⁽³⁾	t_r		10		ns	
Turn-off delay time ⁽²⁾⁽³⁾	$t_{d(off)}$		15		ns	
Fall time ⁽²⁾⁽³⁾	t_f		25		ns	

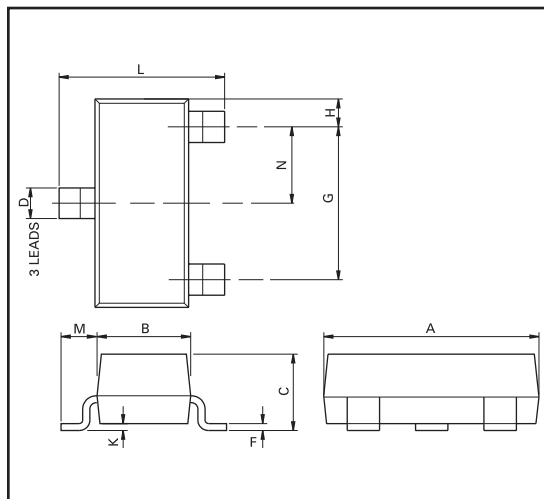
NOTES:

⁽¹⁾ Measured under pulsed conditions. Width=300 μ s. Duty cycle $\leq$ 2% ⁽²⁾ Sample test.

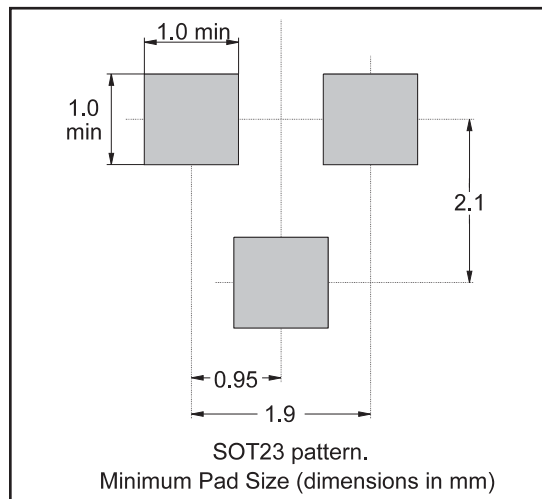
⁽³⁾ Switching times measured with 50 Ω source impedance and <5ns rise time on a pulse generator

ZXM41N0F

PACKAGE OUTLINE



PAD LAYOUT DETAILS



Controlling dimensions are in millimeters. Approximate conversions are given in inches

PACKAGE DIMENSIONS

DIM	Millimeters		Inches		DIM	Millimeters		Inches	
	Min	Max	Min	Max		Min	Max	Max	Max
A	2.67	3.05	0.105	0.120	H	0.33	0.51	0.013	0.020
B	1.20	1.40	0.047	0.055	K	0.01	0.10	0.0004	0.004
C	—	1.10	—	0.043	L	2.10	2.50	0.083	0.0985
D	0.37	0.53	0.015	0.021	M	0.45	0.64	0.018	0.025
F	0.085	0.15	0.0034	0.0059	N	0.95 NOM		0.0375 NOM	
G	1.90 NOM		0.075 NOM		Θ	10° TYP		10° TYP	

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Europe	Americas	Asia Pacific	Corporate Headquarters
Zetex GmbH Kustermann-Park Balanstraße 59 D-8541 München, Germany	Zetex Inc 700 Veterans Memorial Hwy Hauppauge, NY 11788 USA	Zetex (Asia) Ltd 3701-04 Metroplaza Tower 1 Hing Fong Road, Kwai Fong Hong Kong	Zetex plc Fields New Road, Chadderton Oldham, OL9 8NP United Kingdom
Telefon: (49) 89 45 49 49 0 Fax: (49) 89 45 49 49 49 europe.sales@zetex.com	Telephone: (1) 631 360 2222 Fax: (1) 631 360 8222 usa.sales@zetex.com	Telephone: (852) 26100 611 Fax: (852) 24250 494 asia.sales@zetex.com	Telephone (44) 161 622 4444 Fax: (44) 161 622 4446 hq@zetex.com

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