Obsolete. Alternative is BSS123.

ZXM41N10F

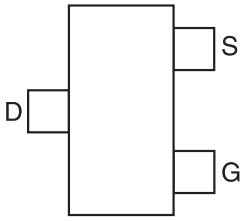
SOT23 N-CHANNEL ENHANCEMENT MODE VERTICAL D MOSFET

FEATURES

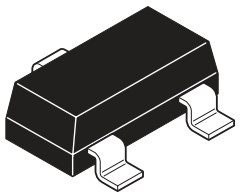
- BV_{DSS} = 100V
- Low Threshold

DEVICE MARKING

- 410



PINOUT TOP VIEW



SOT23

ABSOLUTE MAXIMUM RATINGS

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°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°C	P_{tot}	360	mW
Operating and storage temperature range	T_j:T_{stg}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°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}=±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 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=300μs. Duty cycle ≤2% (2) Sample test.

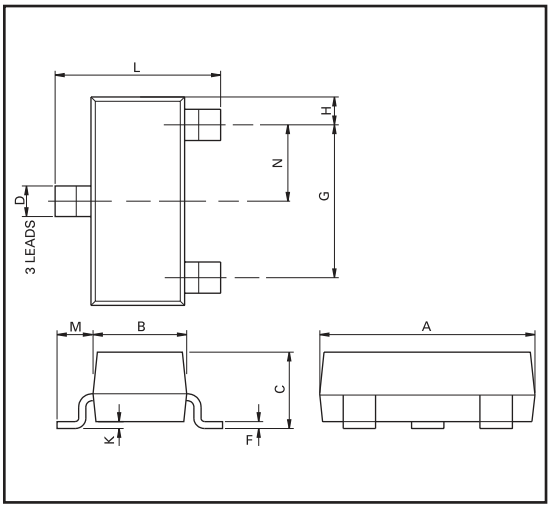
(3) Switching times measured with 50Ω source impedance and <5ns rise time on a pulse generator

ISSUE 2 - OCTOBER 2006

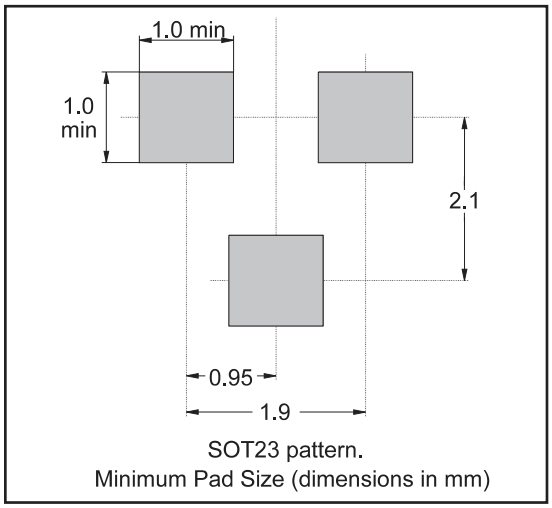
ZETEX SEMICONDUCTORS

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	

Europe	Americas	Asia Pacific	Corporate Headquaters
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

These offices are supported by agents and distributors in major countries world-wide.

For the latest product information, log on to **www.zetex.com**

ISSUE 2 - OCTOBER 2006