

# SOT23 N-CHANNEL ENHANCEMENT MODE VERTICAL DMOS FET

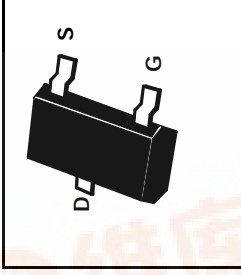
## VN10LF

ISSUE 2 – JANUARY 1996

### FEATURES

- \* 60 Volt  $V_{DS}$
- \*  $R_{DS(on)}=5\Omega$

PARTMARKING DETAIL – MY



查询VN10LFTA供应商

捷多邦, 专业PCB打样工厂, 24小时加急出货

### ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Drain-Source Voltage	$V_{DS}$	60	V
Continuous Drain Current at $T_{amb} = 25^\circ\text{C}$	$I_D$	150	mA
Pulsed Drain Current	$I_{DM}$	3	A
Gate Source Voltage	$V_{GS}$	$\pm 20$	V
Power Dissipation at $T_{amb} = 25^\circ\text{C}$	$P_{Tot}$	330	mW
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	$^\circ\text{C}$

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Drain-Source Breakdown Voltage	$BV_{DSS}$	60			V	$I_D = 100\mu\text{A}, V_{GS} = 0\text{V}$
Gate-Source Breakdown Voltage	$V_{GS(th)}$	0.8		2.5	V	$I_D = 1\text{mA}, V_{DS} = V_{GS}$
Gate Body Leakage	$I_{GSS}$			100	nA	$V_{GS} = \pm 20\text{V}, V_{DS} = 0\text{V}$
Zero Gate Voltage Drain Current (1)	$I_{DSS}$			10	$\mu\text{A}$	$V_{DS} = 60\text{V}, V_{GS} = 0\text{V}$
On State Drain Current(1)	$I_{D(on)}$	750			mA	$V_{DS} = 15\text{V}, V_{GS} = 10\text{V}$
Static Drain Source On State Resistance (1)	$R_{DS(on)}$			5.0 7.5	$\Omega$	$V_{GS} = 10\text{V}, I_D = 500\text{mA}$ $V_{GS} = 5\text{V}, I_D = 200\text{mA}$
Forward Transconductance (1)(2)	$g_{fs}$	100			mS	$V_{DS} = 15\text{V}, I_D = 500\text{mA}$
Input Capacitance (2)	$C_{iss}$			60	pF	
Common Source Output Capacitance (2)	$C_{oss}$			25	pF	$V_{DS} = 25\text{V}, V_{GS} = 0\text{V}$ $f = 1\text{MHz}$
Reverse Transfer Capacitance (2)	$C_{rss}$			5	pF	
Turn-On Time (2)(3)	$t_{(on)}$		3	10	ns	
Turn-Off Time (2)(3)	$t_{(off)}$		4	10	ns	$V_{DD} = 15\text{V}, I_D = 600\text{mA}$

(1) Measured under pulsed conditions. Width=300 $\mu\text{s}$ . Duty cycle  $\leq 2\%$  (2) Sample test.  
 (3) Switching times measured with 50 $\Omega$  source impedance and <5ns rise time on a pulse generator  
 Spice parameter data is available upon request for this device  
 For typical characteristics graphs see ZVN3306F datasheet.

