

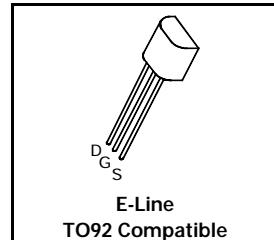
N-CHANNEL ENHANCEMENT MODE VERTICAL DMOS FET

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ZVN3310A

FEATURES

- * 100 Volt V_{DS}
- * $R_{DS(on)} = 10\Omega$



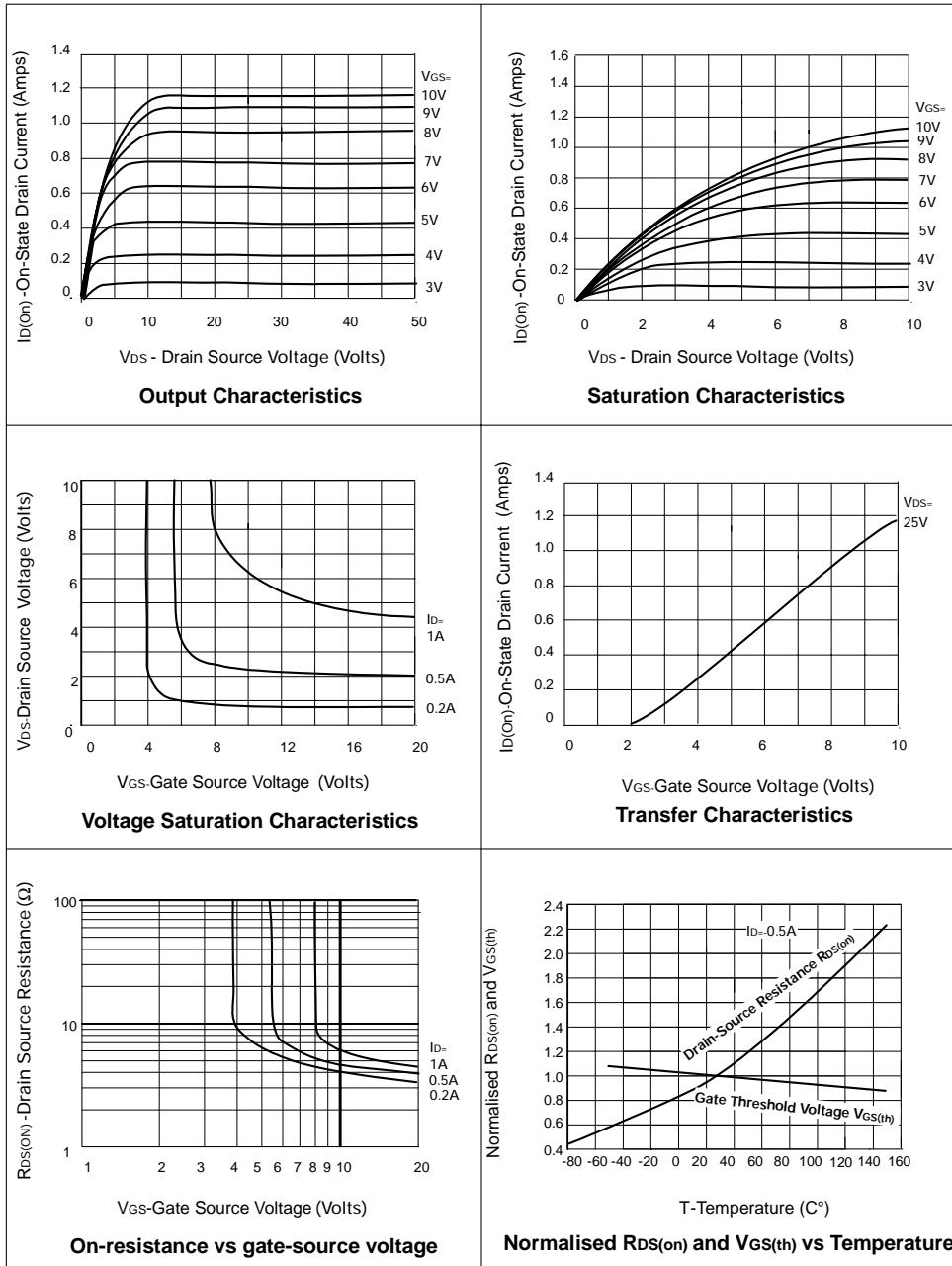
ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Drain-Source Voltage	V_{DS}	100	V
Continuous Drain Current at $T_{amb}=25^\circ C$	I_D	200	mA
Pulsed Drain Current	I_{DM}	2	A
Gate-Source Voltage	V_{GS}	± 20	V
Power Dissipation at $T_{amb}=25^\circ C$	P_{tot}	625	mW
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	°C

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

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Drain-Source Breakdown Voltage	BV_{DSS}	100		V	$I_D=1\text{mA}$, $V_{GS}=0\text{V}$
Gate-Source Threshold Voltage	$V_{GS(th)}$	0.8	2.4	V	$ID=1\text{mA}$, $V_{DS}=V_{GS}$
Gate-Body Leakage	I_{GSS}		20	nA	$V_{GS}=\pm 20\text{V}$, $V_{DS}=0\text{V}$
Zero Gate Voltage Drain Current	$I_{DS(0)}$		1 50	μA μA	$V_{DS}=100\text{V}$, $V_{GS}=0$ $V_{DS}=80\text{V}$, $V_{GS}=0\text{V}$, $T=125^\circ\text{C}$ (2)
On-State Drain Current(1)	$I_{D(on)}$	500		mA	$V_{DS}=25\text{V}$, $V_{GS}=10\text{V}$
Static Drain-Source On-State Resistance (1)	$R_{DS(on)}$		10	Ω	$V_{GS}=10\text{V}$, $I_D=500\text{mA}$
Forward Transconductance(1)(2) g_{fs}		100		mS	$V_{DS}=25\text{V}$, $I_D=500\text{mA}$
Input Capacitance (2)	C_{iss}		40	pF	$V_{DS}=25\text{V}$, $V_{GS}=0\text{V}$, $f=1\text{MHz}$
Common Source Output Capacitance (2)	C_{oss}		15	pF	
Reverse Transfer Capacitance (2)	C_{rss}		5	pF	
Turn-On Delay Time (2)(3)	$t_{d(on)}$		5	ns	$V_{DD}\approx 25\text{V}$, $I_D=500\text{mA}$
Rise Time (2)(3)	t_r		7	ns	
Turn-Off Delay Time (2)(3)	$t_{d(off)}$		6	ns	
Fall Time (2)(3)	t_f		7	ns	

TYPICAL CHARACTERISTICS



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TYPICAL CHARACTERISTICS

