



**THE DATASHEET OF
ZVN0124ASTZ**



ZVN0124A

N-CHANNEL ENHANCEMENT MODE VERTICAL DMOS FET

ISSUE 1 – MARCH 94

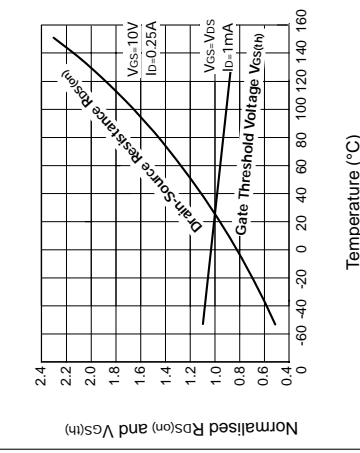
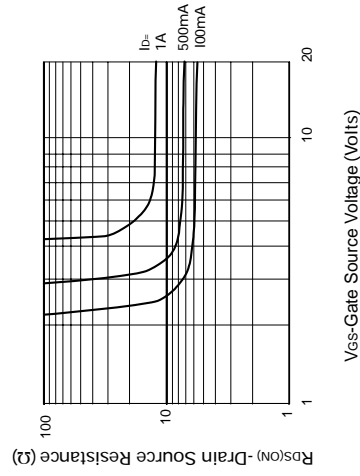
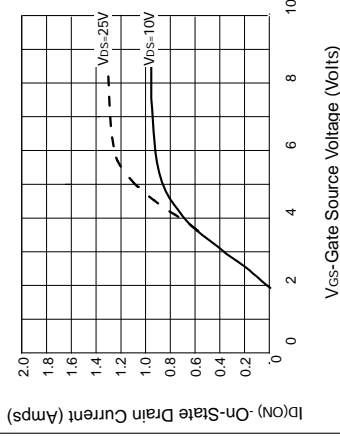
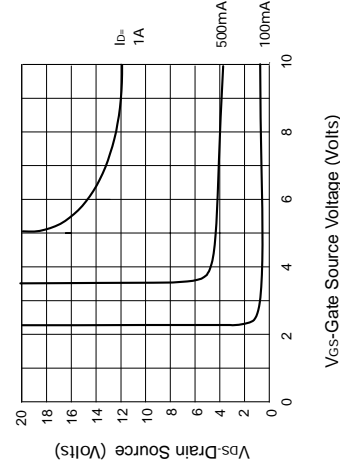
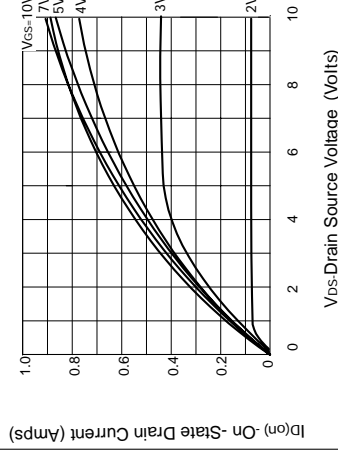
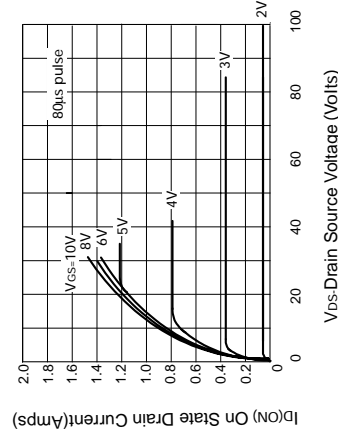
FEATURES

- * 240 Volt V_{DS}
- * $R_{DS(on)} = 16\Omega$

APPLICATIONS

- * Telephone handsets

TYPICAL CHARACTERISTICS



On-resistance vs gate-source voltage

Normalised $R_{DS(on)}$ and $V_{GS(th)}$ vs Temperature

3-351

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL
Drain-Source Voltage	BV_{DSS}
Continuous Drain Current at $T_{amb}=25^{\circ}C$	$V_{GS(th)}$
Pulsed Drain Current	I_{GSS}
Gate Source Voltage	I_{DSS}
Power Dissipation at $T_{amb}=25^{\circ}C$	$I_{D(on)}$
Operating and Storage Temperature Range	$R_{DS(on)}$

ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL
Drain-Source Breakdown Voltage	BV_{DSS}
Gate-Source Threshold Voltage	$V_{GS(th)}$
Gate-Body Leakage Current	I_{GSS}
Zero Gate Voltage Drain Current	I_{DSS}
On-State Drain Current (1)	$I_{D(on)}$
Static Drain-Source On-State Resistance (1)	$R_{DS(on)}$
Forward Transconductance (1)(2)	g_{fs}
Input Capacitance (2)	C_{iss}
Common Source Output Capacitance (2)	C_{oss}
Reverse Transfer Capacitance (2)	C_{riss}
Turn-On Delay Time (2)(3)	$t_{d(on)}$
Rise Time (2)(3)	t_r
Turn-Off Delay Time (2)(3)	$t_{d(off)}$
Fall Time (2)(3)	t_f

(1) Measured under pulsed conditions. With $V_{GS} = 10V$, $V_{DS} = 25V$, $I_D = 1A$, $t_{pulse} = 80\mu s$, $t_{off} = 100\mu s$.
 (2) Sample test.

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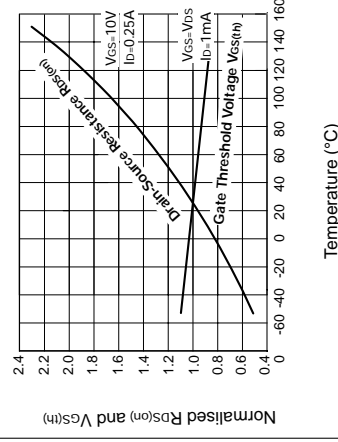
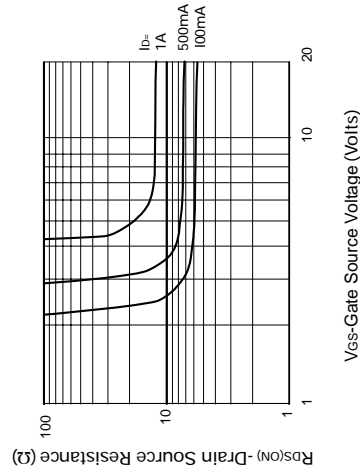
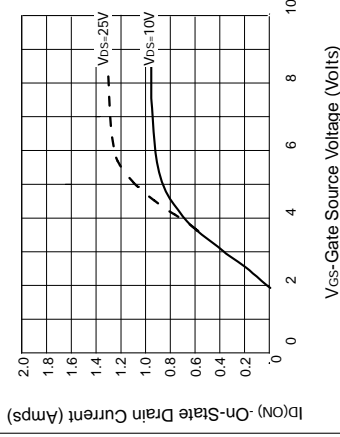
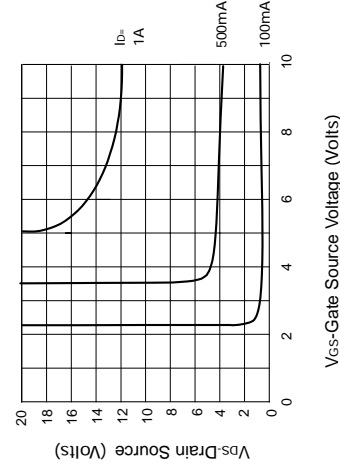
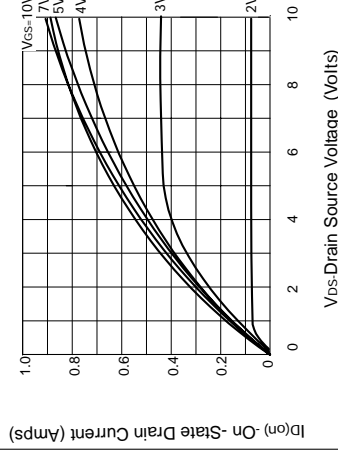
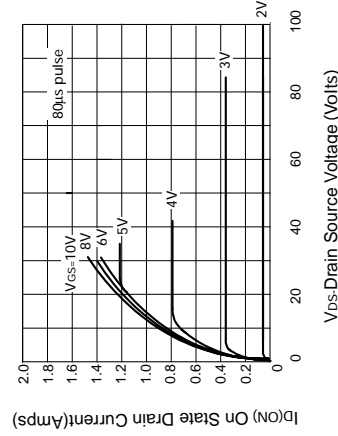
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Operating and Storage Temperature Range	$R_{DS(on)}$

ELECTRICAL CHARACTERISTICS

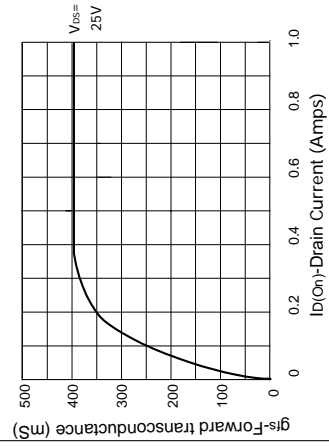
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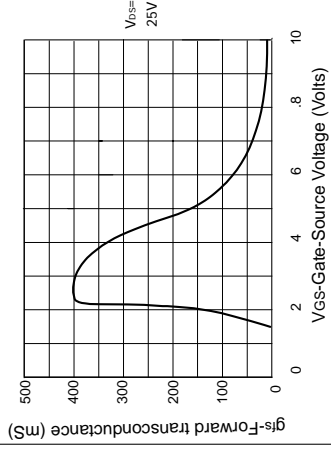
(2) Sample test.

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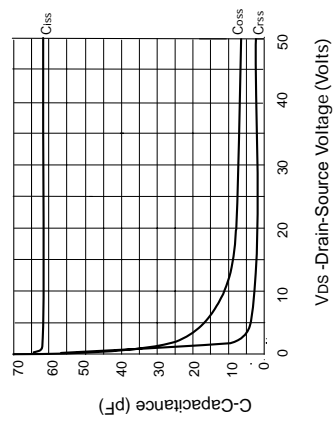
TYPICAL CHARACTERISTICS



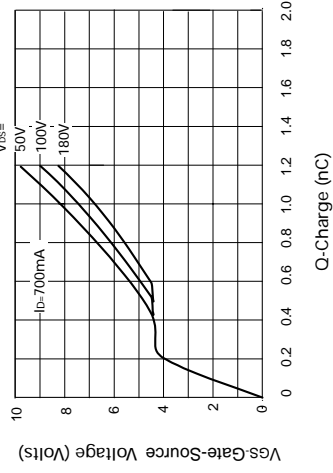
Transconductance v drain current



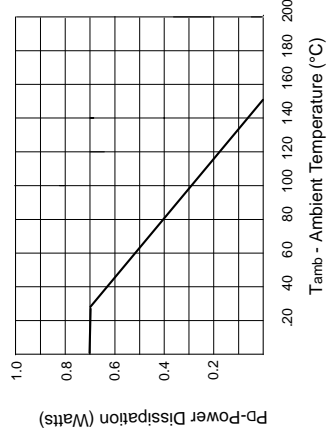
Transconductance v gate-source voltage



Capacitance v drain-source voltage





Gate charge v gate-source voltage



Power v temperature derating curve (ambient)

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