

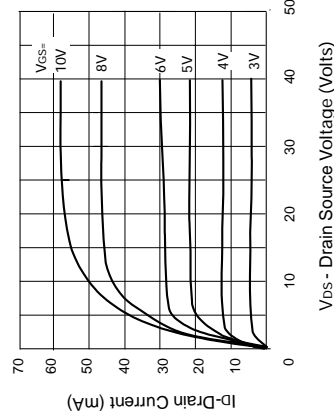


**THE DATASHEET OF  
ZVN1409ASTOA**

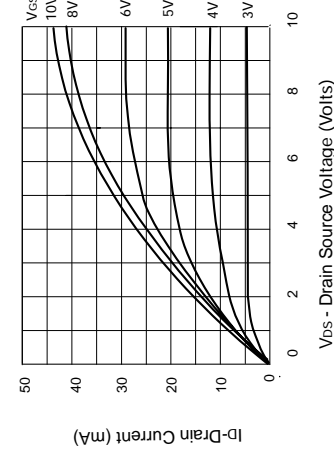


# ZVN1409A

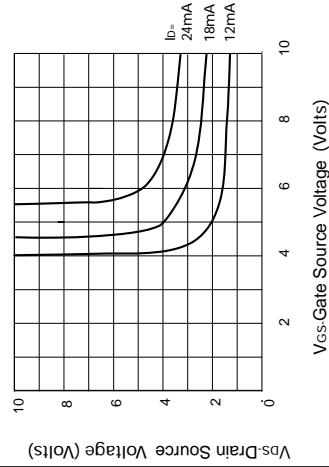
## TYPICAL CHARACTERISTICS



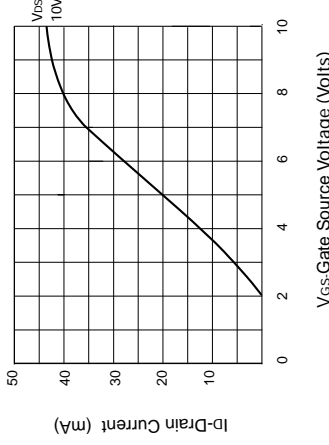
**Output Characteristics**



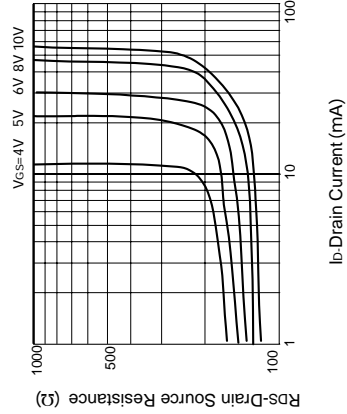
**Saturation Characteristics**



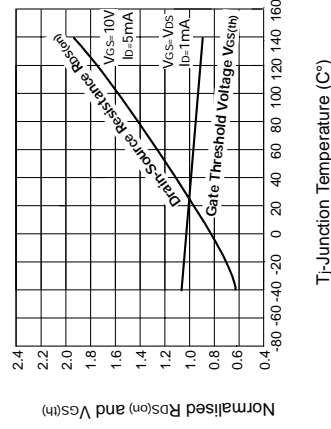
**Voltage Saturation Characteristics**



**Transfer Characteristics**



**On-resistance v drain current**



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

## N-CHANNEL ENHANCEMENT MODE VERTICAL DMOS FET

ISSUE 2 – MARCH 94

### FEATURES

- \* 90 Volt  $V_{DS}$
- \* Low input capacitance
- \* Fast switching

### ABSOLUTE MAXIMUM RATINGS

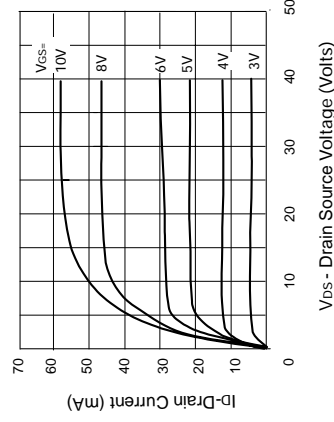
PARAMETER
Drain-Source Voltage
Continuous Drain Current
Pulsed Drain Current
Gate Source Voltage
Power Dissipation at $T_{amb}=25^{\circ}C$
Operating and Storage Temperature Range

### ELECTRICAL CHARACTERISTICS

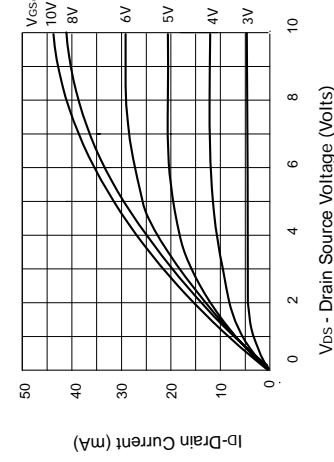
PARAMETER	SYMBOL
Drain-Source Breakdown Voltage	$BV_{DSS}$
Gate-Source Breakdown Voltage	$V_{GS(th)}$
Gate Body Leakage	$I_{GSS}$
Zero Gate Voltage Drain Current	$I_{DSS}$
On State Drain Current (1)	$I_{D(on)}$
Static Drain Source On State Resistance (1)	$R_{DS(on)}$
Forward Transconductance (1)(2)	$g_{fs}$
Input Capacitance (2)	$C_{iss}$
Common Source Output Capacitance (2)	$C_{oss}$
Reverse Transfer Capacitance (2)	$C_{rss}$
Turn-On Delay Time (2)(3)(4)	$t_{d(on)}$
Rise Time (2)(3)(4)	$t_r$
Turn-Off Delay Time (2)(3)(4)	$t_{d(off)}$
Fall Time (2)(3)(4)	$t_f$

# ZVN1409A

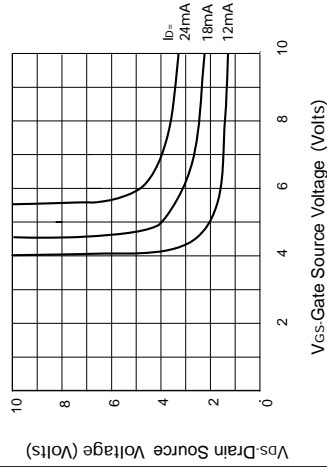
## TYPICAL CHARACTERISTICS



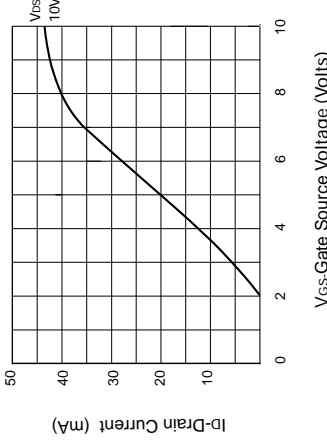
**Output Characteristics**



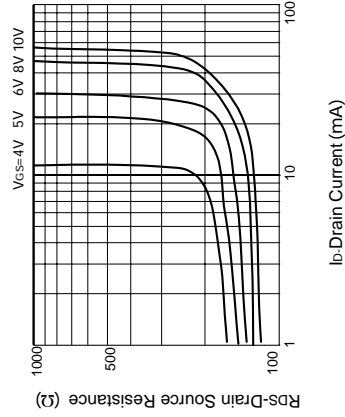
**Saturation Characteristics**



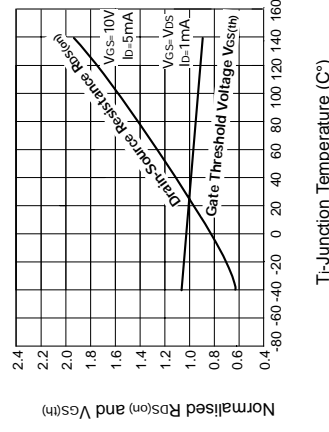
**Voltage Saturation Characteristics**



**Transfer Characteristics**



**On-resistance v drain current**



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

## N-CHANNEL ENHANCEMENT MODE VERTICAL DMOS FET

ISSUE 2 – MARCH 94

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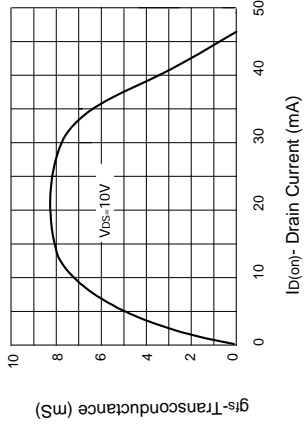
PARAMETER
Drain-Source Voltage
Continuous Drain Current
Pulsed Drain Current
Gate Source Voltage
Power Dissipation at $T_{amb}=25^{\circ}C$
Operating and Storage Temperature Range

### ELECTRICAL CHARACTERISTICS

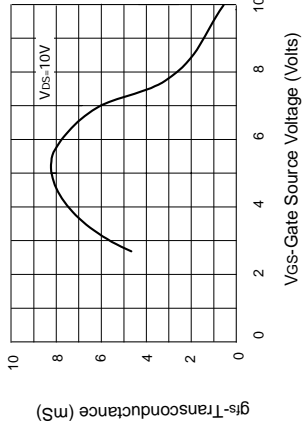
PARAMETER	SYMBOL
Drain-Source Breakdown Voltage	$BV_{DSS}$
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Turn-Off Delay Time (2)(3)(4)	$t_{d(off)}$
Fall Time (2)(3)(4)	$t_f$

# ZVN1409A

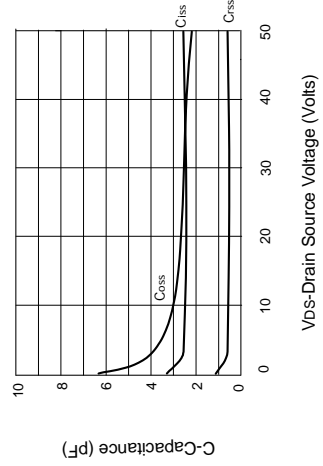
## TYPICAL CHARACTERISTICS



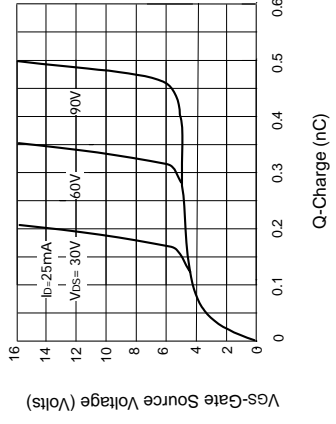
**Transconductance v drain current**



**Transconductance v gate-source voltage**



**Capacitance v drain-source voltage**



**Gate charge v gate-source voltage**

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- ⊖ [Diodes Incorporated](#) Information

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- ✓ Obsolete Management
- ✓ Cost Control Management
- ✓ Shortage Management
- ✓ Alternative Solution
- ✓ Excess Inventory Management