

SOT223 P-CHANNEL ENHANCEMENT MODE VERTICAL DMOS FET

ZVP4424G

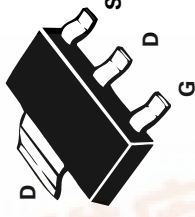
ISSUE 2 - OCTOBER 1995

FEATURES

- * 240 Volt V_{DS}
 - * $R_{DS(on)}$ = 8.8 Ω typical at $V_{GS} = -3.5V$
 - * Low threshold and Fast switching
- ### APPLICATIONS
- * Electronic hook switches
 - * Telecoms and Battery powered equipment

COMPLEMENTARY TYPE - ZVN4424G

PARTMARKING DETAIL - ZVP4424



ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Drain-Source Voltage	V_{DS}	-240	V
Continuous Drain Current at $T_{amb}=25^{\circ}C$	I_D	-480	mA
Pulsed Drain Current	I_{DM}	-1.0	A
Gate Source Voltage	V_{GS}	± 40	V
Power Dissipation at $T_{amb}=25^{\circ}C$	P_{tot}	2.5	W
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	$^{\circ}C$

[查询ZVP4424G供应商](#)

[捷多邦, 专业PCB打样工厂, 24小时加急出货](#)

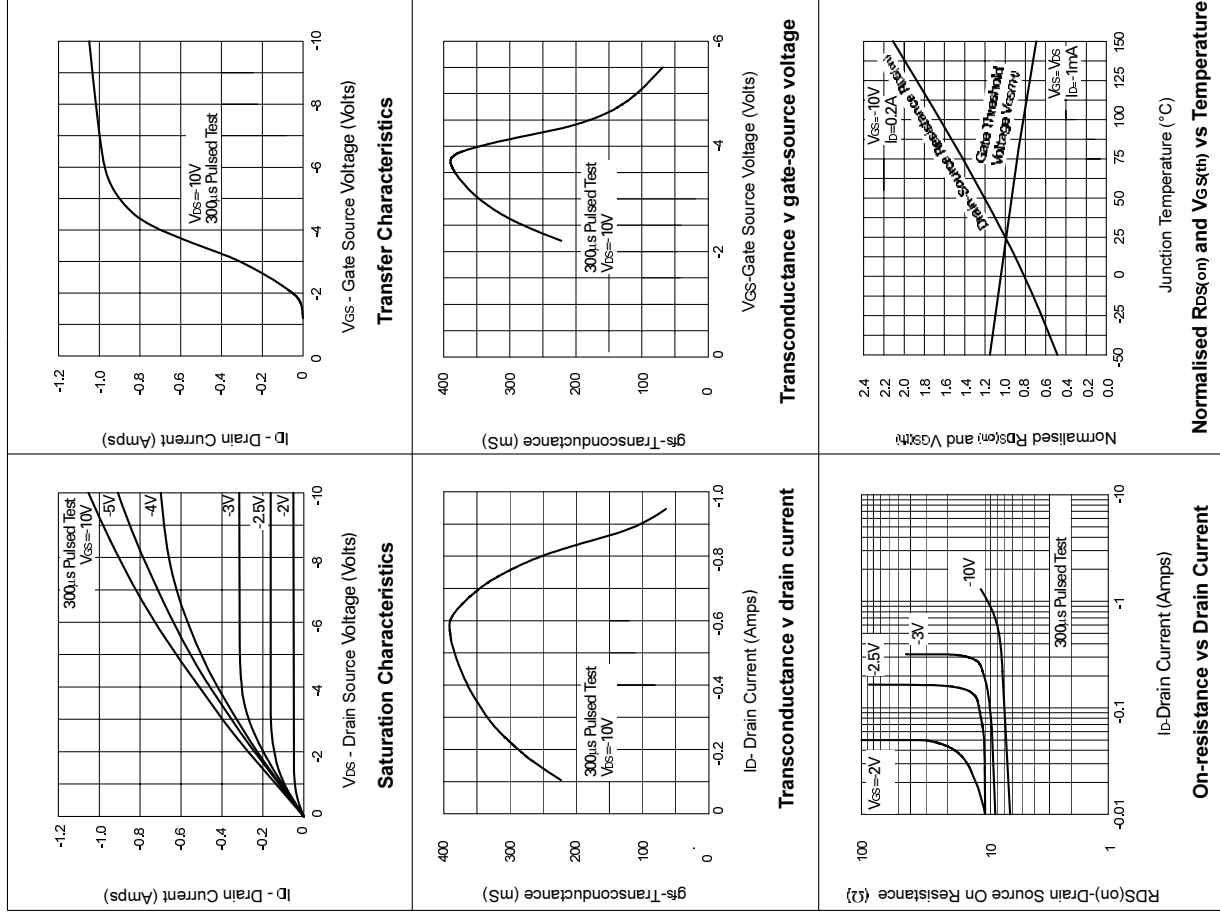
ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C unless otherwise stated).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS
Drain-Source Breakdown Voltage	BV _{DSS}	-240			V	I _D =1mA, V _{GS} =0V
Gate-Source Threshold Voltage	V _{GS(th)}	-0.7	-1.4	-2.0	V	I _D =1mA, V _{DS} =V _{GS}
Gate-Body Leakage	I _{GSS}		100		nA	V _{GS} =±40V, V _{DS} =0V
Zero Gate Voltage Drain Current	I _{BSS}		-10 -100		µA	V _{DS} =-240V, V _{GS} =0V V _{DS} =-190V, V _{GS} =0V, T=125°C
On-State Drain Current	I _{D(on)}	-0.75	-1.0		A	V _{DS} =-10V, V _{GS} =-10V
Static Drain-Source On-State Resistance	R _{DS(on)}		7.1 8.8	9 11	Ω	V _{GS} =-10V, I _D =-200mA V _{GS} =-3.5V, I _D =-100mA
Forward Transconductance (1) (2)	g _{fs}	125			mS	V _{DS} =-10V, I _D =-0.2A
Input Capacitance (2)	C _{iss}		100	200	pF	
Common Source Output Capacitance (2)	C _{oss}		18	25	pF	V _{DS} =-25V, V _{GS} =0V, f=1MHz
Reverse Transfer Capacitance (2)	C _{rss}		5	15	pF	
Turn-On Delay Time (2)(3)	t _{d(on)}		8	15	ns	
Rise Time (2)(3)	t _r		8	15	ns	V _{DD} ≈-50V, I _D =-0.25A, V _{GEN} =-10V
Turn-Off Delay Time (2)(3)	t _{d(off)}		26	40	ns	
Fall Time (2)(3)	t _f		20	30	ns	

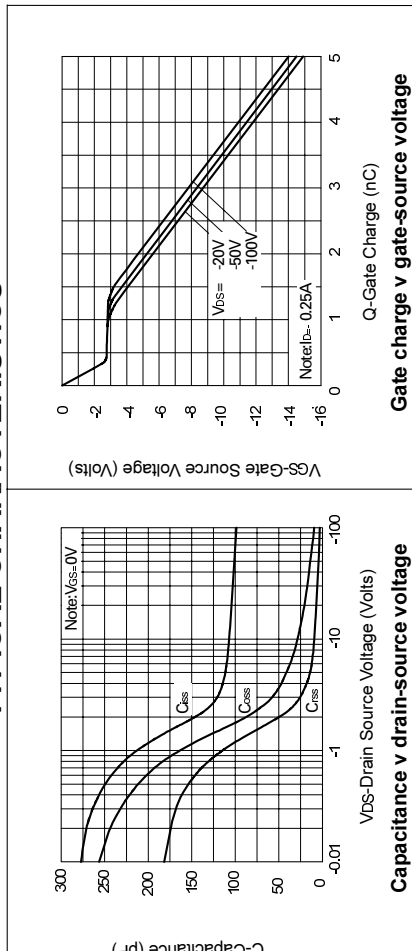
1) Measured under pulsed conditions. Width=300µs. Duty cycle ≤2%
2) Sample test.
3) Switching times measured with 50Ω source impedance and <5ns rise time on a pulse generator

µA parameter data is available upon request for this device

TYPICAL CHARACTERISTICS



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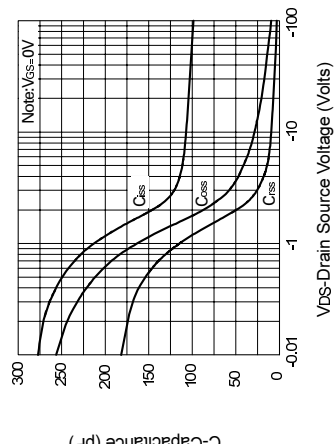
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2) Sample test.

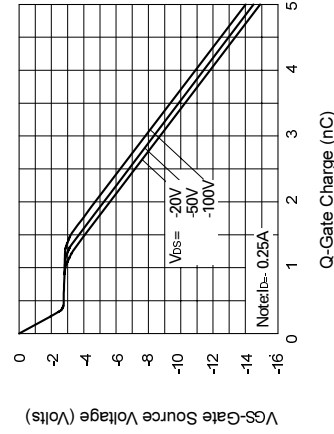
3) Switching times measured with 50Ω source impedance and <5ns rise time on a pulse generator

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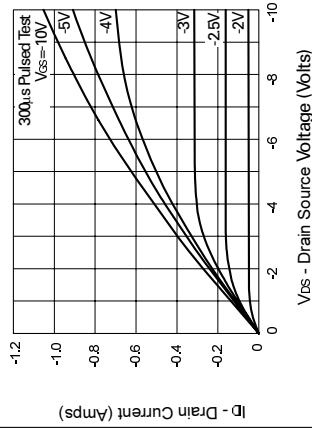


Capacitance v drain-source voltage

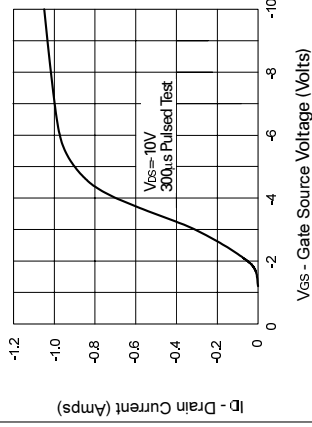


Gate charge v gate-source voltage

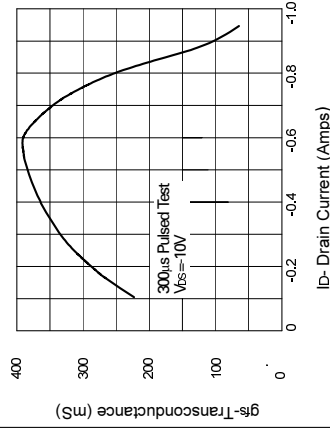
TYPICAL CHARACTERISTICS



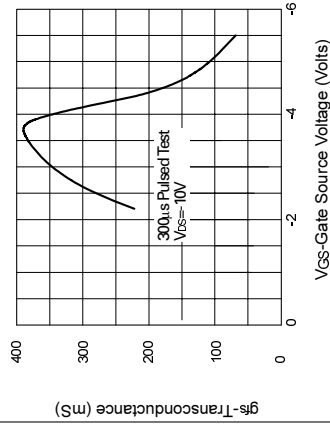
Saturation Characteristics



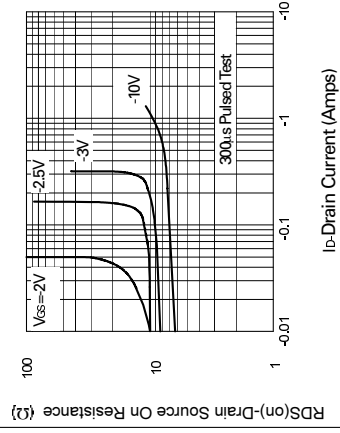
Transfer Characteristics



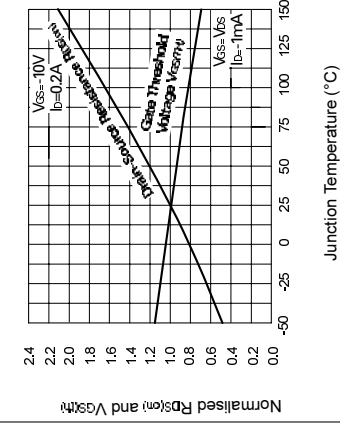
Transconductance v drain current



Transconductance v gate-source voltage



On-resistance vs Drain Current



Normalised RDS(on) and VGS(th) vs Temperature