

SOT223 P-CHANNEL ENHANCEMENT MODE VERTICAL DMOS FET

ISSUE 2 – MARCH 94

FEATURES

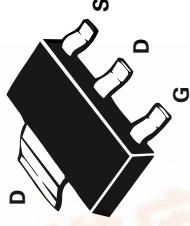
- * 100 Volt V_{DS}
- * $R_{DS(on)}=8\Omega$

COMPLEMENTARY TYPE – ZVN2110G

PARTMARKING DETAIL – ZVP2110

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	-310	mA
Pulsed Drain Current	I_{DM}	-3	A
Gate Source Voltage	V_{GS}	± 20	V
Power Dissipation at $T_{amb}=25^{\circ}C$	P_{tot}	2	W
Operating and Storage Temperature	T_j, T_{stg}	-55 to +150	$^{\circ}C$

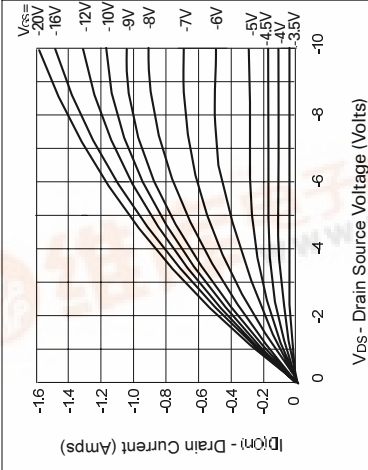


ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}C$ unless otherwise stated).

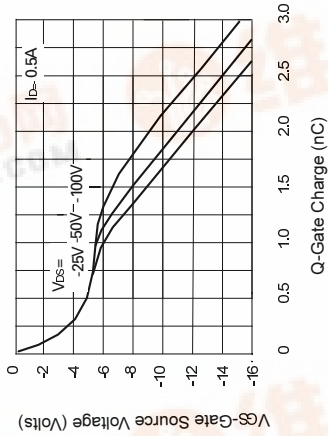
PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Drain-Source Breakdown Voltage	BV_{DSS}	-100		V	$I_D=-1mA, V_{GS}=0V$
Gate-Source Threshold Voltage	$V_{GS(th)}$	-1.5	-3.5	V	$I_D=-1mA, V_{DS}=V_{GS}$
Gate-Body Leakage	I_{GSS}		20	nA	$V_{GS}=\pm 20V, V_{DS}=0V$
Zero Gate Voltage Drain Current	I_{DSS}	-1	-100	μA	$V_{DS}=-100V, V_{GS}=0$
On-State Drain Current(1)	$I_{D(on)}$	-750		mA	$V_{DS}=-25V, V_{GS}=-10V$
Static Drain-Source On-State Resistance (1)	$R_{DS(on)}$		8	Ω	$V_{GS}=-10V, I_D=-375mA$
Forward Transconductance (1)(2)	g_{fs}	125		mS	$V_{DS}=-25V, I_D=-375mA$
Input Capacitance (2)	C_{iss}		100	pF	
Common Source Output Capacitance (2)	C_{oss}		35	pF	$V_{DS}=-25V, V_{GS}=0V, f=1MHz$
Reverse Transfer Capacitance (2)	C_{rss}		10	pF	
Turn-On Delay Time (2)(3)	$t_{d(on)}$		7	ns	
Rise Time (2)(3)	t_r		15	ns	
Turn-Off Delay Time (2)(3)	$t_{d(off)}$		12	ns	
Fall Time (2)(3)	t_f		15	ns	$V_{DD}=-25V, I_D=-375mA$

(1) Measured under pulsed conditions. Width=300 μs . Duty cycle $\leq 2\%$ (2) Sample test.

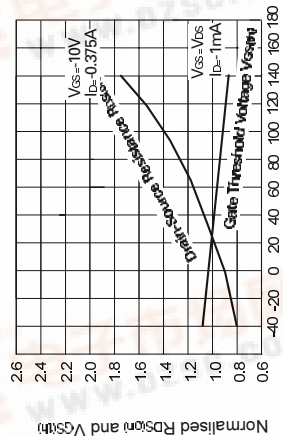
TYPICAL CHARACTERISTICS



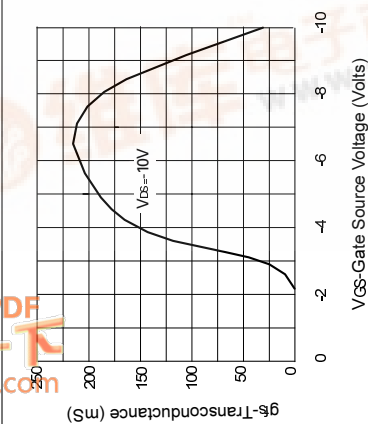
Saturation Characteristics



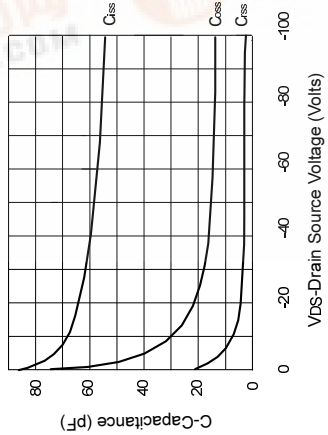
Gate charge v gate-source voltage



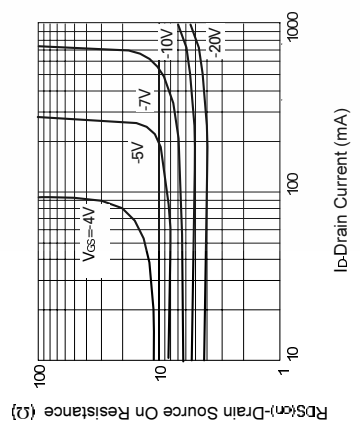
Normalised $R_{DS(on)}$ and $V_{GS(th)}$ vs Temperature



Transconductance v gate-source voltage



Capacitance v drain-source voltage



On-resistance v drain current

查询ZVP2110供应商

捷多邦, 专业PCB打样工厂, 24小时加急出货

ISSUE 2 – MARCH 94

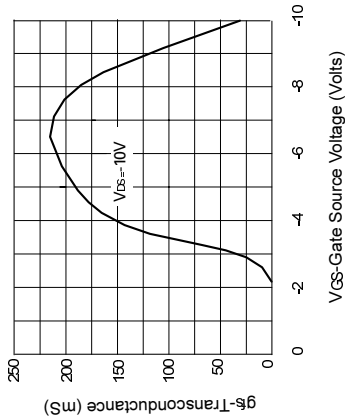
FEATURES

- * 100 Volt V_{DS}
- * $R_{DS(on)}=8\Omega$

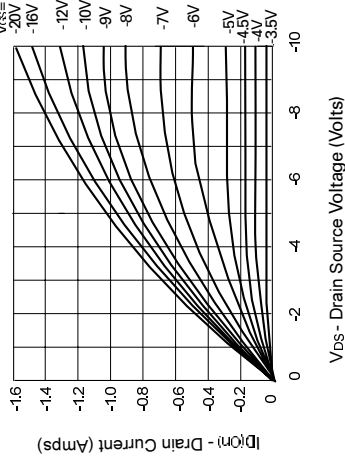
COMPLEMENTARY TYPE – ZVN2110G

PARTMARKING DETAIL – ZVP2110

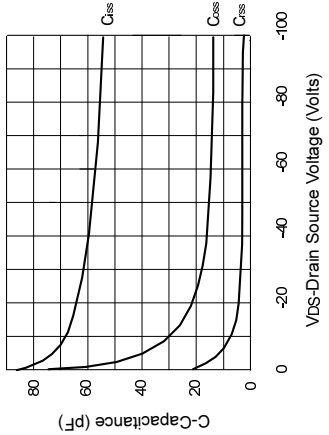
TYPICAL CHARACTERISTICS



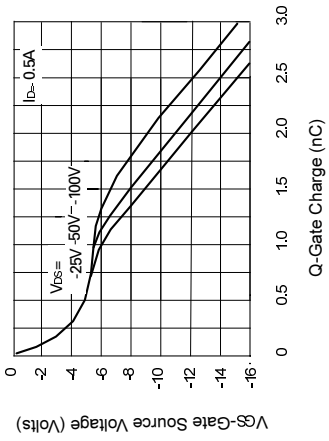
Transconductance v gate-source voltage



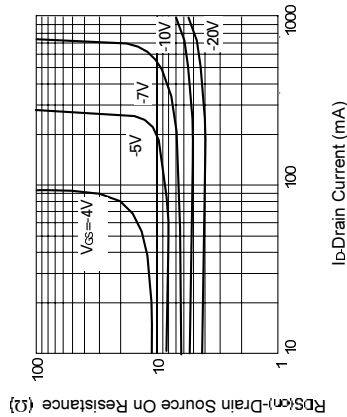
Saturation Characteristics



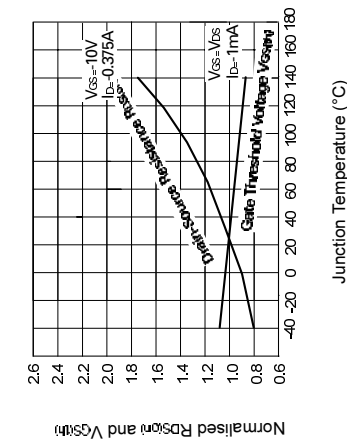
Capacitance v drain-source voltage



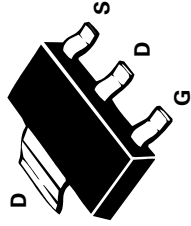
Gate charge v gate-source voltage



On-resistance v drain current



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



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	-310	mA
Pulsed Drain Current	I_{DM}	-3	A
Gate Source Voltage	V_{GS}	± 20	V
Power Dissipation at $T_{amb}=25^{\circ}C$	P_{tot}	2	W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 to +150	$^{\circ}C$

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	$I_D=-1mA, V_{GS}=0V$
Gate-Source Threshold Voltage	$V_{GS(th)}$	-1.5	-3.5	V	$I_D=-1mA, V_{DS}=V_{GS}$
Gate-Body Leakage	I_{GSS}		20	nA	$V_{GS}=\pm 20V, V_{DS}=0V$
Zero Gate Voltage Drain Current	I_{DSS}	-1	-100	μA	$V_{DS}=-100V, V_{GS}=0$
On-State Drain Current(1)	$I_{D(on)}$	-750		mA	$V_{DS}=-80V, V_{GS}=0V, T=125^{\circ}C(2)$
Static Drain-Source On-State Resistance (1)	$R_{DS(on)}$		8	Ω	$V_{DS}=-25V, V_{GS}=-10V$
Forward Transconductance (1)(2)	g_{fs}	125		mS	$V_{DS}=-25V, I_D=-375mA$
Input Capacitance (2)	C_{iss}		100	pF	
Common Source Output Capacitance (2)	C_{oss}		35	pF	$V_{DS}=-25V, V_{GS}=0V, f=1MHz$
Reverse Transfer Capacitance (2)	C_{riss}		10	pF	
Turn-On Delay Time (2)(3)	$t_{d(on)}$		7	ns	
Rise Time (2)(3)	t_r		15	ns	
Turn-Off Delay Time (2)(3)	$t_{d(off)}$		12	ns	
Fall Time (2)(3)	t_f		15	ns	$V_{DD}=-25V, I_D=-375mA$

(1) Measured under pulsed conditions. Width=300 μs . Duty cycle $\leq 2\%$ (2) Sample test.