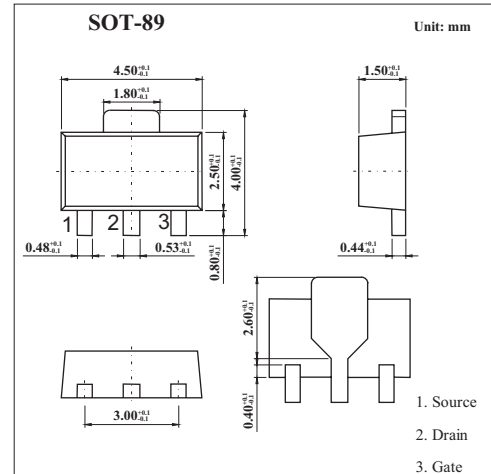


250V P-Channel Enhancement Mode Vertical MOSFET KVP4424Z

■ Features

- 240 Volt V_{DS}
- $R_{DS(on)} = 8.8 \Omega$ typical at $V_{GS} = -3.5V$
- Low threshold and Fast switching



■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-240	V
Continuous Drain Current at $T_{amb}=25^\circ C$	I_D	-200	mA
Pulsed Drain Current	I_{DM}	-1	A
Gate Source Voltage	V_{GS}	± 40	V
Power Dissipation at $T_{amb} = 25^\circ C$	P_{tot}	1*	W
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	$^\circ C$

* recommended P_{tot} calculated using FR4 measuring 15X15X0.6mm

KVP4424Z

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit	
Drain-Source Breakdown Voltage	B _{VDS}	I _D =-1mA, V _{GS} =0V	-240			V	
Gate-Source Threshold Voltage	V _{GS(th)}	I _D =-1mA, V _{DS} = V _{GS}	-0.7	-1.4	-2.0	V	
Gate-Body Leakage	I _{GSS}	V _{GS} =± 40V, V _{DS} =0V			100	nA	
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =-240V, V _{GS} =0V			-10	μ A	
		V _{DS} =-190V, V _{GS} =0V, T=125°C			-100	μ A	
On-State Drain Current	I _{D(on)}	V _{DS} =-10V, V _{GS} =-10V	-0.75	-1.0		A	
Static Drain-Source	R _{DS(on)}	V _{GS} =-10V, I _D =-200mA		7.1	9	Ω	
On-State Resistance		V _{GS} =-3.5V, I _D =-100mA		8.8	11	Ω	
Forward Transconductance *1,2	g _{fs}	V _{DS} =-10V, I _D =-0.2A	125			mS	
Input Capacitance *2	C _{iss}	V _{DS} =-25V, V _{GS} =0V, f=1MHz		100	200	pF	
Common Source Output Capacitance *2	C _{oss}				18	25	pF
Reverse Transfer Capacitance*2	C _{rss}				5	15	pF
Turn-On Delay Time *2,3	t _{d(on)}	V _{DD} ≈ -50V, I _D = -0.25A, V _{GEN} = -10V		8	15	ns	
Rise Time *2,3	t _r			8	15	ns	
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=300 μ s. Duty cycle ≤2%

*2 Sample test.

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

Spice parameter data is available upon request for this device

■ Marking

Marking	24P
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