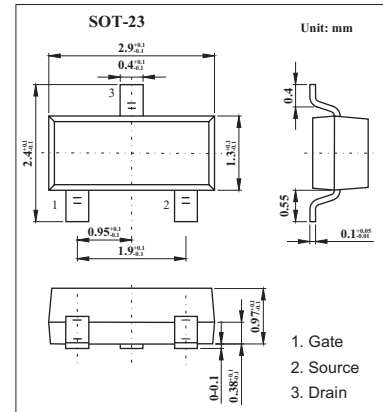
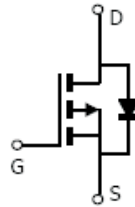


P-Channel Enhancement Mode Field Effect Transistor KO3407

■ Features

- $V_{DS} (V) = -30V$
- $I_D = -4.1 A$
- $R_{DS(ON)} < 52m\Omega$ ($V_{GS} = -10V$)
- $R_{DS(ON)} < 87m\Omega$ ($V_{GS} = -4.5V$)



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

Parameter	Symbol	Rating	Unit
Gate-Source Voltage	V_{GS}	-30	V
Drain-Source Voltage	V_{DS}	± 20	V
Continuous Drain Current *1 $T_A=25^\circ C$	I_D	-4.1	A
Current *1 $T_A=70^\circ C$		-3.5	
Pulsed Drain Current *2	I_{DM}	-20	
Power Dissipation *1 $T_A=25^\circ C$	P_D	1.4	W
$T_A=70^\circ C$		1	
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to 150	$^\circ C$

*1The value of $R_{\theta JA}$ is measured with the device mounted on $1in^2$ FR-4 board with 2oz.

Copper, in a still air environment with $T_A = 25^\circ C$

*2 Repetitive rating, pulse width limited by junction temperature.

■ Thermal Characteristics

Parameter	Symbol	Typ	Max	Unit
Maximum Junction-to-Ambient*1 $t \leq 10s$	$R_{\theta JA}$	65	90	$^\circ C/W$
Maximum Junction-to-Ambient *1 Steady-State		85	125	$^\circ C/W$
Maximum Junction-to-Lead *2 Steady-State	$R_{\theta JL}$	43	60	$^\circ C/W$

*1The value of $R_{\theta JA}$ is measured with the device mounted on $1in^2$ FR-4 board with 2oz.

Copper, in a still air environment with $T_A = 25^\circ C$

*2 . The $R_{\theta JA}$ is the sum of the thermal impedance from junction to lead $R_{\theta JL}$ and lead to ambient.

KO3407

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BVDSS	Id=250μA, VGS=0V	-30			V
Zero Gate Voltage Drain Current	IDSS	VDS=-24V, VGS=0V			-1	μA
		VDS=-24V, VGS=0V, TJ=55°C			-5	
Gate-Body leakage current	IGSS	VDS=0V, VGS=±20V			±100	nA
Gate Threshold Voltage	VGS(th)	VDS=VGS Id=-250μA	-1	-1.8	-3	V
On state drain current	ID(ON)	VGS=-4.5V, VDS=-5V	-10			A
Static Drain-Source On-Resistance	RDS(ON)	VGS=-10V, Id=4.1A		40.5	52	mΩ
		VGS=-10V, Id=4.2A TJ=125°C		57	73	
		VGS=-4.5V, Id=-3A		64	87	mΩ
Forward Transconductance	gFS	VDS=-5V, Id=-4A	5.5	8.2		S
Diode Forward Voltage	VSD	IS=-1A, VGS=0V		-0.77	-1	V
Maximum Body-Diode Continuous Current	IS				-2.2	A
Reverse Transfer Capacitance	Ciss			700		pF
Gate resistance	Coss	VGS=0V, VDS=-15V, f=1MHz		120		pF
Input Capacitance	Crss			75		pF
Output Capacitance	Rg	VGS=0V, VDS=0V, f=1MHz		10		Ω
Total Gate Charge(10V)	Qg			14.3		nC
Total Gate Charge (4.5V)	Qg			7		nC
Gate Source Charge	Qgs	VGS=-4.5V, VDS=-15V, Id=-4A		3.1		nC
Gate Drain Charge	Qgd			3		nC
Turn-On Rise Time	tD(on)			8.6		ns
Turn-Off DelayTime	tr			5		ns
Turn-Off Fall Time	tD(off)	VGS=-10V, VDS=-15V, RL=3.6Ω, RGEN=3Ω		28.2		ns
Turn-On DelayTime	tf			13.5		ns
Body Diode Reverse Recovery Time	trr	IF=-4A, di/dt=100A/μs		27		ns
Body Diode Reverse Recovery Charge	Qrr	IF=-4A, di/dt=100A/μs		15		nC

■ Marking

Marking	A7
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