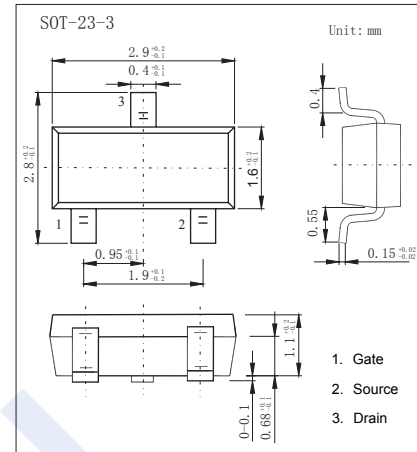
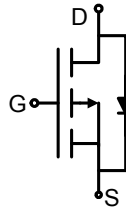


P-Channel MOSFET

KI5P04DS

■ Features

- $V_{DS} (V) = -40V$
- $I_D = -5.3 A (V_{GS} = -10V)$
- $R_{DS(ON)} < 85m\Omega (V_{GS} = -10V)$
- $R_{DS(ON)} < 126m\Omega (V_{GS} = -4.5V)$
- High power and current handling capability



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

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-40	V
Gate-Source Voltage	V_{GS}	± 20	
Continuous Drain Current	I_D	-5.3	A
Pulsed Drain Current	I_{DM}	-20	
Power Dissipation	P_D	2	W
Thermal Resistance.Junction- to-Ambient (Note.1)	R_{thJA}	62.5	$^\circ C/W$
Junction Temperature	T_J	150	$^\circ C$
Junction Storage Temperature Range	T_{stg}	-55 to 150	

Note. 1: Surface Mounted on FR4 Board, $t \leq 10$ sec.

P-Channel MOSFET

KI5P04DS

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V _{DSS}	I _D =-250 μA, V _{GS} =0V	-40			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =-40V, V _{GS} =0V			-1	μA
Gate-Body leakage current	I _{GSS}	V _{DS} =0V, V _{GS} =±20V			±100	nA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} I _D =-250 μA (Note.1)	-1		-3	V
Static Drain-Source On-Resistance	R _{DS(on)}	V _{GS} =-10V, I _D =-5A (Note.1)			85	mΩ
		V _{GS} =-4.5V, I _D =-4A (Note.1)			126	
Forward Transconductance	g _{FS}	V _{DS} =-5V, I _D =-4.1A	10			S
Input Capacitance	C _{iss}	V _{GS} =0V, V _{DS} =-20V, f=1MHz		650		pF
Output Capacitance	C _{oss}			90		
Reverse Transfer Capacitance	C _{rss}			70		
Total Gate Charge	Q _g	V _{GS} =-10V, V _{DS} =-20V, I _D =-3.1A		14		nC
Gate Source Charge	Q _{gs}			2.9		
Gate Drain Charge	Q _{gd}			3.8		
Turn-On DelayTime	t _{d(on)}	V _{GS} =-10V, V _{DS} =-20V, R _L =2Ω, R _{GEN} =3Ω		9		ns
Turn-On Rise Time	t _r			8		
Turn-Off DelayTime	t _{d(off)}			28		
Turn-Off Fall Time	t _f			10		
Maximum Body-Diode Continuous Current	I _S				-5.3	A
Diode Forward Voltage	V _{SD}	I _S =-2.5A, V _{GS} =0V (Note.1)			-1.2	V

Note.1: Pulse Test: Pulse Width ≤ 300μs, Duty Cycle ≤ 2.

■ Marking

Marking	40P05
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