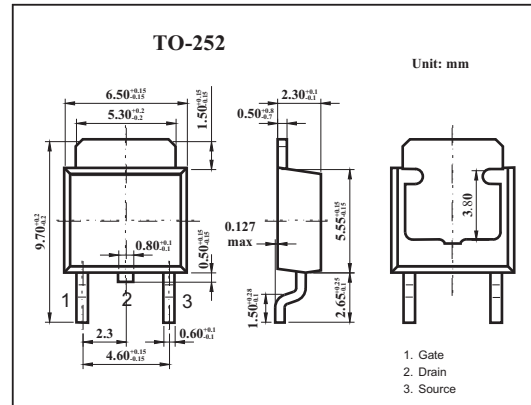
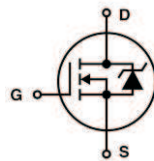


N-Channel MOSFET KXU05N25

Features

V_{DS} (V) = 250V

$R_{DS(ON)}$ 1 Ω (V_{GS} = 10V)



Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	250	V
Gate source voltage	V_{GS}	± 20	V
Drain Current — Continuous	I_D	5	A
Drain Current - Pulsed (Note 2)	I_{DM}	15	A
Power dissipation @ $T_A = 25^\circ\text{C}$ (Note 1) - Derate above 25°C	P_D	50	W
		0.32	W/ $^\circ\text{C}$
Thermal resistance, junction - ambient	R_{thJA}	100	$^\circ\text{C}/\text{W}$
Operating and storage temperature	T_j, T_{stg}	-55 to +150	$^\circ\text{C}$

Note:1.Power rating when mounted on FR-4 glass epoxy printed circuit board using recommended footprint.

2.Pulse Test : Pulse width 300 μs , Duty cycle 2%

N-Channel MOSFET KXU05N25

Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV _{DSS}	V _{GS} = 0 V, I _D = 250 μA	250			V
Gate Threshold Voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = 250 μA	2.0		4.0	V
Gate-Body leakage current	I _{GSS}	V _{GS} = ±20 V, V _{DS} = 0 V			±100	nA
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = 250 V, V _{GS} = 0 V			10	μA
Drain-Source On-State Resistance	R _{DS(on)}	V _{GS} = 10 V, I _D = 2.5 A		0.81	1	Ω
Forward Transconductance	g _{FS}	V _{DS} = 15 V, I _D = 2.5 A	1.5	2.6		S
Total Gate Charge	Q _g	V _{DS} = 200V, V _{GS} = 10 V, I _D = 5 A		13.2	15	nC
Gate-Source Charge	Q _{gs}			2.9		
Gate-Drain Charge	Q _{gd}			6.2		
Input Capacitance	C _{iss}	V _{DS} = 25V, V _{GS} = 0, f = 1.0MHz		369	520	pF
Output Capacitance	C _{oss}			66	90	
Reverse Transfer Capacitance	C _{rss}			14	30	
Turn-On Delay Time	t _{d(on)}	V _{DD} = 125V, V _{GS} = 10V, R _G = 9.1 Ω, I _D = 5A		9	10	ns
Turn-On Rise Time	t _r			18	40	
Turn-Off Delay Time	t _{d(off)}			21	40	
Turn-Off Fall Time	t _f			18	40	
Drain-Source Diode Forward Voltage	V _{SD}	I _S = 5 A, dI _S / dt = 100 A/μs		0.93	1.6	V
Reverse Recovery Time	t _{rr}			147		ns
Maximum Body-Diode Continuous Current	I _S				5	A

Marking

Marking	5N25
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