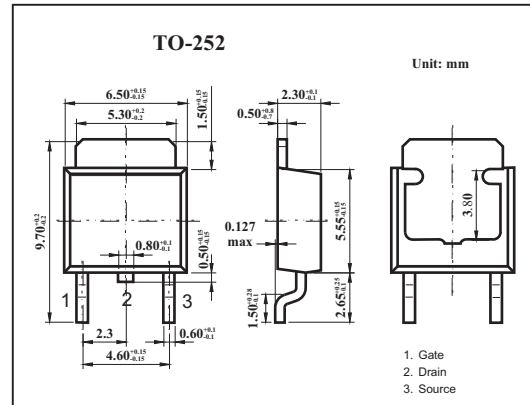
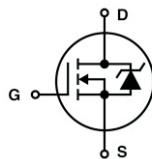


■ Features

- $V_{DS} (V) = 250V$
- $R_{DS(ON)} \leq 2\Omega (V_{GS} = 10V)$



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

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DS}$	250	V
Gate source voltage	$V_{GS}$	$\pm 20$	V
Drain Current — Continuous	$I_D$	3	A
Drain Current - Pulsed (Note 2)	$I_{DM}$	9	A
Power dissipation @ $T_a = 25^\circ C$ (Note 1) - Derate above $25^\circ C$	$P_D$	40	W
		0.32	W/ $^\circ C$
Thermal resistance, junction - ambient	$R_{thJA}$	100	$^\circ C/W$
Operating and storage temperature	$T_j, T_{stg}$	-55 to +150	$^\circ C$

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

2.Pulse Test : Pulse width  $\leq 300\mu s$ , Duty cycle  $\leq 2\%$

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BVDSS	V <sub>GS</sub> = 0 V, I <sub>D</sub> = 250 μA	250			V
Gate Threshold Voltage	V <sub>GS(th)</sub>	V <sub>DS</sub> = V <sub>GS</sub> , I <sub>D</sub> = 250 μA	2.0		4.0	V
Gate-Body leakage current	I <sub>GSS</sub>	V <sub>GS</sub> = ±20 V, V <sub>DS</sub> = 0 V			±100	nA
Zero Gate Voltage Drain Current	I <sub>DSS</sub>	V <sub>DS</sub> = 250 V, V <sub>GS</sub> = 0 V			10	μA
Drain-Source On-State Resistance	R <sub>DS(on)</sub>	V <sub>GS</sub> = 10 V, I <sub>D</sub> = 1.5 A		1.4	2.0	Ω
Forward Transconductance	g <sub>FS</sub>	V <sub>DS</sub> = 50 V, I <sub>D</sub> = 1.4 A		2.3		S
Total Gate Charge	Q <sub>g</sub>	V <sub>DS</sub> = 200V, V <sub>GS</sub> = 10 V, I <sub>D</sub> = 3 A		9.8	15	nC
Gate-Source Charge	Q <sub>gs</sub>			2.1		
Gate-Drain Charge	Q <sub>gd</sub>			4.2		
Input Capacitance	C <sub>iss</sub>	V <sub>DS</sub> = 25V, V <sub>GS</sub> = 0, f = 1.0MHz		307	430	pF
Output Capacitance	C <sub>oss</sub>			57	75	
Reverse Transfer Capacitance	C <sub>rss</sub>			14	25	
Turn-On DelayTime	t <sub>d(on)</sub>	V <sub>DD</sub> = 125V, V <sub>GS</sub> = 10V, R <sub>G</sub> = 4.7 Ω, I <sub>D</sub> = 3A		7	15	ns
Turn-On Rise Time	t <sub>r</sub>			5	15	
Turn-Off Delay Time	t <sub>d(off)</sub>			15	30	
Turn-Off Fall Time	t <sub>f</sub>			6	15	
Drain-Source Diode Forward Voltage	V <sub>SD</sub>	V <sub>GS</sub> = 0 V, I <sub>S</sub> = 3 A, dI <sub>S</sub> / dt = 100 A/μs		0.9	1.6	V
Reverse Recovery Time	t <sub>rr</sub>			153		ns
Maximum Body-Diode Continuous Current	I <sub>S</sub>				3	A

■ Marking

Marking	3N25
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