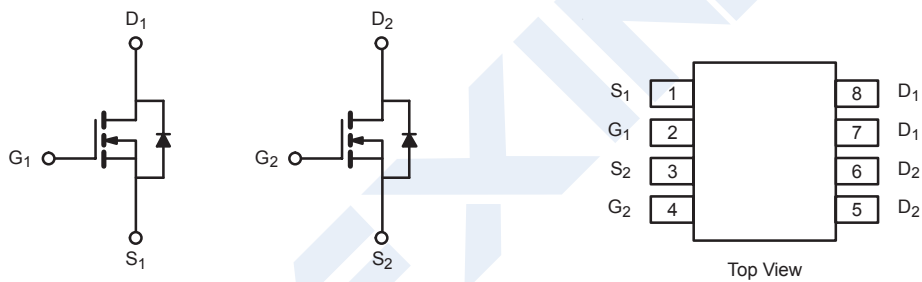
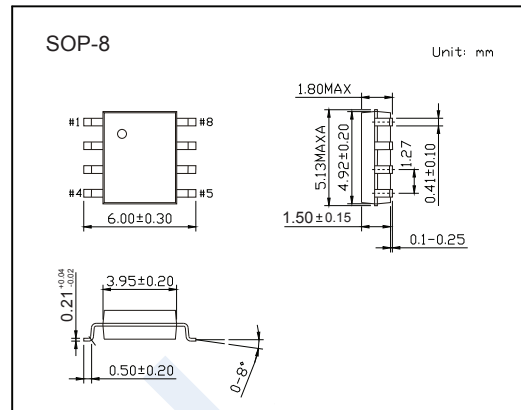


Dual N-Channel MOSFET

KI9926A

■ Features

- $R_{DS(on)} = 0.030 \, \Omega$ @ $V_{GS} = 4.5 \, V$
- $R_{DS(on)} = 0.040 \, \Omega$ @ $V_{GS} = 2.5 \, V$.

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

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	20	V
Gate-Source Voltage	V_{GS}	± 12	V
Continuous Drain Current *1 $T_A = 25^\circ C$	I_D	4.8	A
$T_A = 70^\circ C$		3.8	A
Pulsed Drain Current	I_{DM}	30	A
Maximum Power Dissipation *1 $T_A = 25^\circ C$	P_D	1.25	W
$T_A = 70^\circ C$		0.8	W
Thermal Resistance, Junction-to-Ambient	$R_{\theta JA}$	100	$^\circ C/W$
Maximum Junction-to-Foot (Drain)	$R_{\theta JF}$	40	$^\circ C/W$
Junction temperature and Storage temperature	T_J, T_{stg}	-55 to +150	$^\circ C$

*1 Surface Mounted on 1" x 1" FR4 Board.

KI9926A

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V _{DSS}	V _{GS} = 0 V, I _D = 250 μA	20			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = 20V, V _{GS} = 0V			1	μA
		V _{DS} = 20V, V _{GS} = 0V, T _J = 55°C			25	
Gate Threshold Voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = 250μA	0.6			V
Gate-Body Leakage	I _{GSS}	V _{DS} = 0V, V _{GS} = ±12V			±100	nA
Drain-Source On-State Resistance *2	r _{DS(on)}	V _{GS} = 4.5V, I _D = 6.5A		0.023	0.030	Ω
		V _{GS} = 2.5V, I _D = 5.4A		0.030	0.040	
On-State Drain Current *2	I _{D(on)}	V _{DS} = 5V, V _{GS} = 4.5V	20			A
Forward Transconductance *2	g _{fs}	V _{DS} = 15V, I _D = 6A		22		S
Total Gate Charge	Q _g	V _{DS} = 15V, V _{GS} = 4.5V, I _D = 6A		13	20	nC
Gate-Source Charge	Q _{gs}			3		
Gate-Drain Charge	Q _{gd}			3.3		
Turn-On Delay Time	t _{d(on)}	V _{DD} = 15V, R _L = 15 Ω I _D = 1 A, V _{GEN} = 4.5V, R _G = 6 Ω		22	35	ns
Rise Time	t _r			40	60	
Turn-Off Delay Time	t _{d(off)}			50	75	
Fall Time	t _f			20	30	
Continuous Source Current (Diode Conduction)	I _S				1	A
Diode Forward Voltage *2	V _{SD}	I _S = 1.7A, V _{GS} = 0 V		0.7	1.2	V

*2 Pulse test; pulse width ≤ 300 μs, duty cycle ≤ 2 %.