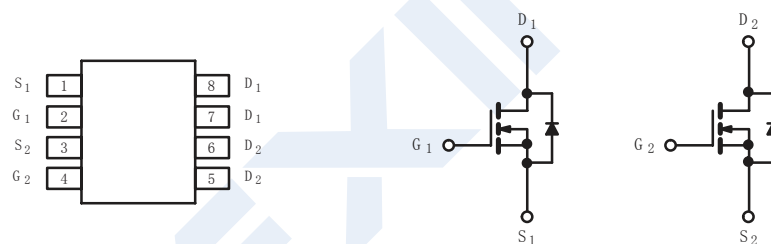
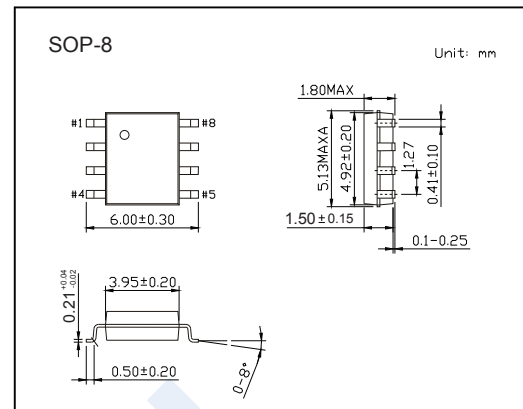


Dual N-Channel MOSFET

SI9926BDY (KI9926BDY)

■ Features

- $R_{DS(on)} = 0.027 \Omega$ @ $V_{GS} = 4.5 V$
- $R_{DS(on)} = 0.036 \Omega$ @ $V_{GS} = 2.5 V$.

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

Parameter	Symbol	10 sec	Steady State	Unit
Drain-Source Voltage	V_{DS}	20		V
Gate-Source Voltage	V_{GS}	± 10		V
Continuous Drain Current	I_D	8.2	6.2	A
Pulsed Drain Current	I_{DM}	30		A
Maximum Power Dissipation @ $T_a = 25^\circ C$ @ $T_a = 70^\circ C$	P_D	2.0	1.14	W
		1.3	0.72	W
Thermal Resistance, Junction-to-Ambient	$R_{\theta JA}$	110		$^\circ C/W$
Junction temperature and Storage temperature	T_j, T_{stg}	-55 to +150		$^\circ C$

SI9926BDY (KI9926BDY)■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{DS}	$V_{GS} = 0\text{ V}$, $I_D = 250\text{ }\mu\text{A}$	20			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = 20\text{ V}$, $V_{GS} = 0\text{ V}$			1	μA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}$, $I_D = 250\text{ }\mu\text{A}$	0.5		1.5	V
Gate-Body Leakage	I_{GSS}	$V_{DS} = 0\text{ V}$, $V_{GS} = \pm 8\text{ V}$			± 100	nA
Drain-Source On-State Resistance *	$R_{DS(on)}$	$V_{GS} = 4.5\text{ V}$, $I_D = 8.5\text{ A}$		0.020	0.027	Ω
		$V_{GS} = 2.5\text{ V}$, $I_D = 3.3\text{ A}$		0.029	0.036	
On-State Drain Current *	$I_{D(on)}$	$V_{DS} = 5\text{ V}$, $V_{GS} = 4.5\text{ V}$	30			A
Forward Transconductance *	g_{fs}	$V_{DS} = 15\text{ V}$, $I_D = 8.2\text{ A}$		29		S
Total Gate Charge	Q_g	$V_{DS} = 10\text{ V}$, $V_{GS} = 4.5\text{ V}$, $I_D = 8.2\text{ A}$		11	20	nC
Gate-Source Charge	Q_{gs}			2.5		
Gate-Drain Charge	Q_{gd}			3.2		
Turn-On Delay Time	$t_{d(on)}$	$V_{DD} = 10\text{ V}$, $I_D = 1\text{ A}$, $V_{GS} = 4.5\text{ V}$, $R_G = 6\text{ }\Omega$, $R_L = 10\text{ }\Omega$		36	57	ns
Rise Time	t_r			52	78	
Turn-Off Delay Time	$t_{d(off)}$			32	50	
Fall Time	t_f			15	25	
Maximum Continuous Drain-Source Diode Forward Current	I_S				0.95	A
Diode Forward Voltage *	V_{SD}	$I_S = 1.7\text{ A}$, $V_{GS} = 0\text{ V}$		0.8	1.2	V

* Pulse test; pulse width $\leq 300\text{ }\mu\text{s}$, duty cycle $\leq 2\%$.

■ Marking

Marking	9926B KA****
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