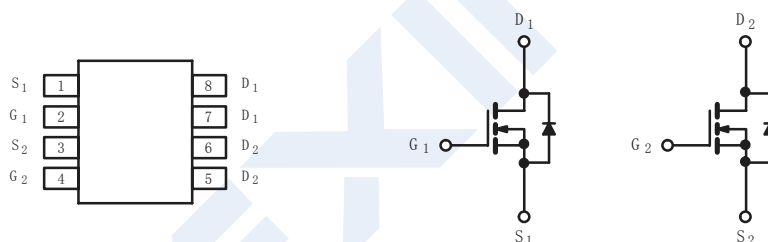
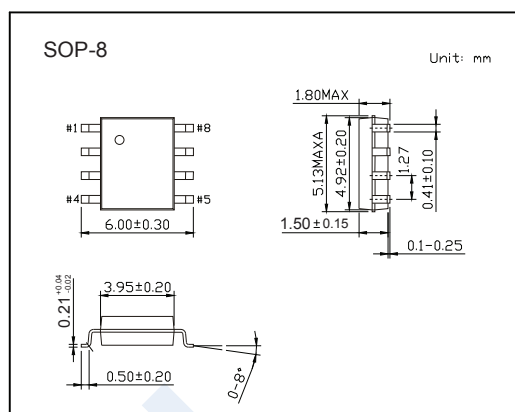


## Dual N-Channel MOSFET

## 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	$V_{GS}$	$\pm 10$		V	
Continuous Drain Current	$I_D$	8.2	6.2	A	
Pulsed Drain Current	$I_{DM}$	30		A	
Maximum Power Dissipation	$P_D$	@ $T_A = 25^\circ C$	2.0	1.14	W
		@ $T_A = 70^\circ C$	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 Ta = 25°C

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V <sub>DSS</sub>	V <sub>GS</sub> = 0 V, I <sub>D</sub> = 250 μA	20			V
Zero Gate Voltage Drain Current	I <sub>DSS</sub>	V <sub>DS</sub> = 20V, V <sub>GS</sub> = 0V			1	μA
Gate Threshold Voltage	V <sub>GS(th)</sub>	V <sub>DS</sub> = V <sub>GS</sub> , I <sub>D</sub> = 250μA	0.5		1.5	V
Gate-Body Leakage	I <sub>GSS</sub>	V <sub>DS</sub> = 0V, V <sub>GS</sub> = ±8V			±100	nA
Drain-Source On-State Resistance *	R <sub>DS(on)</sub>	V <sub>GS</sub> = 4.5V, I <sub>D</sub> = 8.5A		0.020	0.027	Ω
		V <sub>GS</sub> = 2.5V, I <sub>D</sub> = 3.3A		0.029	0.036	
On-State Drain Current *	I <sub>D(on)</sub>	V <sub>DS</sub> = 5V, V <sub>GS</sub> = 4.5V	30			A
Forward Transconductance *	g <sub>fs</sub>	V <sub>DS</sub> = 15V, I <sub>D</sub> = 8.2A		29		S
Total Gate Charge	Q <sub>g</sub>	V <sub>DS</sub> = 10V, V <sub>GS</sub> = 4.5V, I <sub>D</sub> = 8.2A		11	20	nC
Gate-Source Charge	Q <sub>gs</sub>			2.5		
Gate-Drain Charge	Q <sub>gd</sub>			3.2		
Turn-On Delay Time	t <sub>d(on)</sub>	V <sub>DD</sub> = 10V, I <sub>D</sub> = 1A, V <sub>GS</sub> = 4.5V, R <sub>G</sub> = 6 Ω, R <sub>L</sub> = 10 Ω		36	57	ns
Rise Time	t <sub>r</sub>			52	78	
Turn-Off Delay Time	t <sub>d(off)</sub>			32	50	
Fall Time	t <sub>f</sub>			15	25	
Maximum Continuous Drain-Source Diode Forward Current	I <sub>S</sub>				0.95	A
Diode Forward Voltage *	V <sub>SD</sub>	I <sub>S</sub> = 1.7A, V <sub>GS</sub> = 0 V		0.8	1.2	V

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

## ■ Marking

Marking	9926B KA****
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