

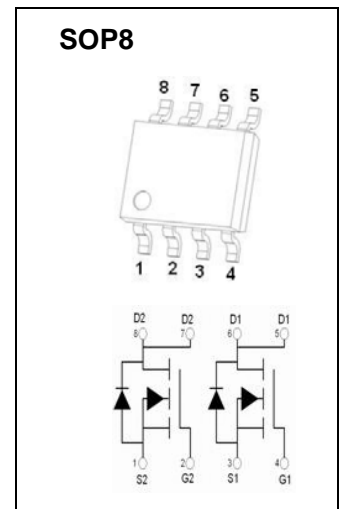
## SOP8 Plastic-Encapsulate MOSFETS

### CJQ9926 Dual N-Channel MOSFET

#### FEATURE

- Advanced trench process technology
- High density cell design for ultra low on-resistance
- High power and current handing capability
- Ideal for Liion battery pack applications

#### MARKING: Q9926



#### Maximum ratings ( $T_a=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source voltage	$V_{DS}$	20	V
Gate-Source Voltage	$V_{GS}$	$\pm 12$	V
Continuous Drain Current *	$I_D$	4.8	A
Pulsed Drain Current	$I_{DM}$	30	A
Power Dissipation *	$P_D$	1.25	W
Thermal Resistance from Junction to Ambient *	$R_{\theta JA}$	100	$^{\circ}\text{C}/\text{W}$
Junction Temperature	$T_J$	150	$^{\circ}\text{C}$
Storage Temperature	$T_{stg}$	-55~+150	$^{\circ}\text{C}$

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

**Electrical characteristics (T<sub>a</sub>=25°C unless otherwise noted)**

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
<b>STATIC CHARACTERISTICS</b>						
Drain-source breakdown voltage	V <sub>(BR)DSS</sub>	V <sub>GS</sub> = 0V, I <sub>D</sub> = 250μA	20			V
Zero gate voltage drain current	I <sub>DSS</sub>	V <sub>DS</sub> = 20V, V <sub>GS</sub> = 0V			1	μA
Gate-body leakage current	I <sub>GSS</sub>	V <sub>GS</sub> = ±12V, V <sub>DS</sub> = 0V			±100	nA
Gate threshold voltage (note 1)	V <sub>GS(th)</sub>	V <sub>DS</sub> = V <sub>GS</sub> , I <sub>D</sub> = 250μA	0.6		1.2	V
Drain-source on-resistance (note 1)	R <sub>DSON</sub>	V <sub>GS</sub> = 2.5V, I <sub>D</sub> = 5A			40	mΩ
		V <sub>GS</sub> = 4.5V, I <sub>D</sub> = 6A			30	mΩ
Forward transconductance (note 1)	g <sub>FS</sub>	V <sub>DS</sub> = 15V, I <sub>D</sub> = 6A	15			S
<b>SWITCHING CHARACTERISTICS (note 2)</b>						
Turn-on delay time	t <sub>d(on)</sub>	V <sub>GEN</sub> = 4.5V, V <sub>DD</sub> = 15V, R <sub>GEN</sub> = 6Ω, I <sub>D</sub> = 1A, R <sub>L</sub> = 15Ω			35	ns
Turn-on rise time	t <sub>r</sub>				60	ns
Turn-off delay time	t <sub>d(off)</sub>				75	ns
Turn-off fall time	t <sub>f</sub>				30	ns
Total gate charge	Q <sub>g</sub>	V <sub>DS</sub> = 15V, V <sub>GS</sub> = 4.5V, I <sub>D</sub> = 6A			20	nC
Gate-source Charge	Q <sub>gs</sub>			3		nC
Gate-drain Charge	Q <sub>gd</sub>			3.3		nC
<b>SOURCE-DRAIN DIODE CHARACTERISTICS</b>						
Maximum diode forward current	I <sub>S</sub>				1	A
Diode forward voltage (note 1)	V <sub>SD</sub>	I <sub>S</sub> = 1.7A, V <sub>GS</sub> = 0V			1.2	V
Source-Drain Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> = 1.7 A, di/dt = 100 A/μs			80	ns

**Notes :**

1. Pulse Test : Pulse Width ≤ 300μs, Duty Cycle ≤ 2%.
2. Guaranteed by design, not subject to production

