

RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

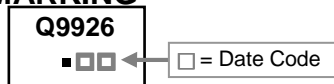
## DESCRIPTION

SSG9926J-C provides the designers with the best combination of fast switching, ruggedized device design, ultra low on-resistance and cost-effectiveness.

## FEATURES

- Advanced Trench Processing Technology
- High Density Cell Design for Ultra Low On-Resistance
- High Power and Current Handling Capability

## MARKING



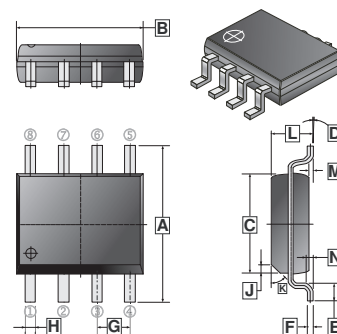
## PACKAGE INFORMATION

Package	MPQ	Leader Size
SOP-8	4K	13 inch

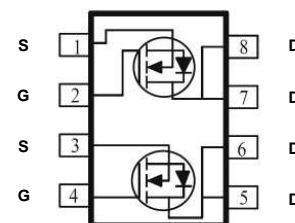
## ORDER INFORMATION

Part Number	Type
SSG9926J-C	Lead (Pb)-free and Halogen-free

### SOP-8



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	5.79	6.20	H	0.33	0.51
B	4.70	5.11	J	0.375	REF.
C	3.80	4.00	K	45°	REF.
D	0°	8°	L	1.3	1.752
E	0.40	1.27	M	0	0.25
F	0.10	0.25	N	0.25	REF.
G	1.27 TYP.				



## ABSOLUTE MAXIMUM RATINGS ( $T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Drain-Source Voltage	$V_{DS}$	20	V
Gate-Source Voltage	$V_{GS}$	$\pm 12$	V
Continuous Drain Current <sup>1</sup>	$I_D$	4.8	A
Pulsed Drain Current	$I_{DM}$	30	A
Power Dissipation <sup>1</sup>	$P_D$	1.25	W
Thermal Resistance from Junction-Ambient <sup>1</sup>	$R_{\theta JA}$	100	$^\circ\text{C}/\text{W}$
Junction and Storage Temperature Range	$T_J, T_{STG}$	150, -55~150	$^\circ\text{C}$

Note:

1. The surface of the device is mounted on a 1"x1" FR4 board.

**ELECTRICAL CHARACTERISTICS** ( $T_A=25^\circ\text{C}$  unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test conditions
Drain-Source Breakdown Voltage	$BV_{DSS}$	20	-	-	V	$V_{GS}=0, I_D=250\mu\text{A}$
Zero Gate Voltage Drain Current	$I_{DSS}$	-	-	1	$\mu\text{A}$	$V_{DS}=20\text{V}, V_{GS}=0$
Gate-Body Leakage Current	$I_{GSS}$	-	-	$\pm 100$	nA	$V_{DS}=0, V_{GS}= \pm 12\text{V}$
Gate-Threshold Voltage <sup>1</sup>	$V_{GS(th)}$	0.6	-	1.2	V	$V_{DS}=V_{GS}, I_D=250\mu\text{A}$
Drain-Source On-Resistance <sup>1</sup>	$R_{DS(ON)}$	-	-	30	m $\Omega$	$V_{GS}=4.5\text{V}, I_D=6\text{A}$
		-	-	40		$V_{GS}=2.5\text{V}, I_D=5\text{A}$
Forward Transfer Conductance <sup>1</sup>	$g_{fs}$	15	-	-	S	$V_{DS}=15\text{V}, I_D=6\text{A}$
Total Gate Charge	$Q_g$	-	20	-	nC	$V_{DS}=15\text{V}$ $V_{GS}=4.5\text{V}$ $I_D=6\text{A}$
Gate-Source Charge	$Q_{gs}$	-	3	-		
Gate-Drain ("Miller") Charge	$Q_{gd}$	-	3.3	-		
Turn-on Delay Time	$T_{d(on)}$	-	35	-	nS	$V_{DD}=15\text{V}$ $V_{GEN}=4.5\text{V}$ $R_L=15\Omega$ $R_{GEN}=6\Omega$ $I_D=1\text{A}$
Rise Time	$T_r$	-	60	-		
Turn-off Delay Time	$T_{d(off)}$	-	75	-		
Fall Time	$T_f$	-	30	-		
<b>Source-Drain Diode Characteristics</b>						
Maximum Diode Forward Current	$I_S$	-	-	1	A	
Diode Forward Voltage <sup>1</sup>	$V_{SD}$	-	-	1.2	V	$I_S=1.7\text{A}, V_{GS}=0$
Source-Drain Reverse Recovery Time	$T_{RR}$	-	-	80	nS	$I_F=1.7\text{A}, di/dt=100\text{A}/\mu\text{S}$

Note:

1. Pulse Test: Pulse width  $\leq 300\mu\text{s}$ , duty cycle  $\leq 2\%$ .

**CHARACTERISTICS CURVE**

