

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

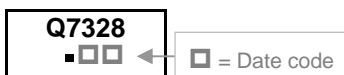
## DESCRIPTION

The SSG7328J-C uses advanced trench technology to provide excellent on-resistance, low gate charge and operation with gate voltages as low as 2.5V. The device is suitable for use as a load switch or in PWM applications. It may be used in a common drain arrangement to a bidirectional blocking switch.

## FEATURES

- Simple Drive Requirement
- Lower On-Resistance
- Low Gate Charge

## MARKING



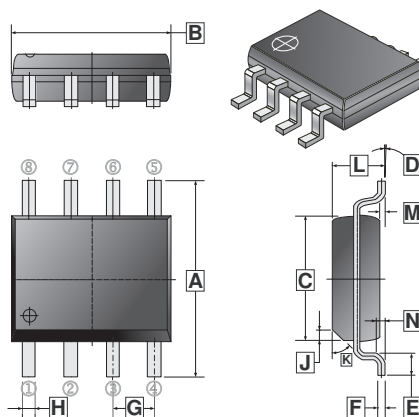
## PACKAGE INFORMATION

Package	MPQ	Leader Size
SOP-8	2.5K	13 inch

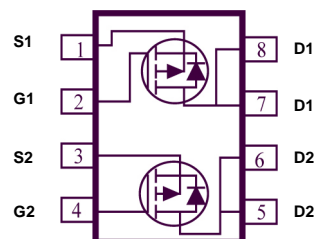
## ORDER INFORMATION

Part Number	Type
SSG7328J-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.				



## MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Drain-Source Voltage	V <sub>DS</sub>	-30	V
Gate-Source Voltage	V <sub>GS</sub>	±20	V
Continuous Drain Current	I <sub>D</sub>	-8	A
Pulsed Drain Current <sup>1</sup>	I <sub>DM</sub>	-32	A
Power Dissipation <sup>2</sup>	P <sub>D</sub>	1.4	W
Operating Junction & Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	150, -55~150	°C
Thermal Resistance Ratings			
Thermal Resistance Junction-ambient <sup>2</sup>	R <sub>θJA</sub>	89	°C/W

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test conditions
Drain-Source Breakdown Voltage	$BV_{DSS}$	-30	-	-	V	$V_{GS}=0, I_D = -250\mu\text{A}$
Gate Threshold Voltage	$V_{GS(th)}$	-1	-	-2.5	V	$V_{DS}=V_{GS}, I_D = -250\mu\text{A}$
Forward Transconductance	$g_{fs}$	12	-	-	S	$V_{DS} = -10\text{V}, I_D = -8\text{A}$
Gate-Source Leakage Current	$I_{GSS}$	-	-	$\pm 100$	nA	$V_{DS}=0, V_{GS} = \pm 20\text{V}$
Zero Gate Voltage Drain Current	$I_{DSS}$	-	-	-15	$\mu\text{A}$	$V_{DS} = -24\text{V}, V_{GS}=0$
Static Drain-Source On-Resistance <sup>3</sup>	$R_{DS(ON)}$	-	-	21	m $\Omega$	$V_{GS} = -10\text{V}, I_D = -8\text{A}$
		-	-	32		$V_{GS} = -4.5\text{V}, I_D = -6.8\text{A}$
Total Gate Charge	$Q_g$	-	78	-	nC	$V_{DS} = -15\text{V}$ $I_D = -8\text{A}$ $V_{GS} = -10\text{V}$
Gate-Source Charge	$Q_{gs}$	-	9.8	-		
Gate-Drain ("Miller") Charge	$Q_{gd}$	-	8.3	-		
Turn-on Delay Time	$T_{d(on)}$	-	20	-	nS	$V_{DD} = -15\text{V}$ $V_{GS} = -10\text{V}$ $R_D = 15\Omega$ $I_D = -1\text{A}$ $R_G = 6\Omega$
Rise Time	$T_r$	-	23	-		
Turn-off Delay Time	$T_{d(off)}$	-	297	-		
Fall Time	$T_f$	-	147	-		
Input Capacitance	$C_{iss}$	-	2675	-	pF	$V_{DS} = -25\text{V}$ $V_{GS} = 0$ $f = 1\text{MHz}$
Output Capacitance	$C_{oss}$	-	409	-		
Reverse Transfer Capacitance	$C_{rss}$	-	262	-		
<b>Source-Drain Diode</b>						
Diode Forward Voltage <sup>3</sup>	$V_{SD}$	-	-	-1.2	V	$I_S = -2\text{A}, V_{GS}=0$

Notes:

1. Repetitive rating: Pulse width limited by junction temperature.
2. Surface mounted on 1"x1" FR4 board,  $t \leq 10\text{s}$ .
3. Pulse Test: Pulse width  $\leq 300\mu\text{s}$ , Duty cycle  $\leq 2\%$ .

**CHARACTERISTIC CURVES**

