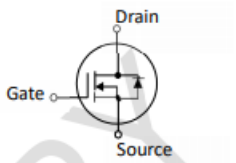
SPQ5R1N30W

30V, 80A [1] N-Channel MOSFET

- Advanced Trench Device Design and Processes
- High Reliability Capability
- Sampled CP Probing and Inking

SYMBOL



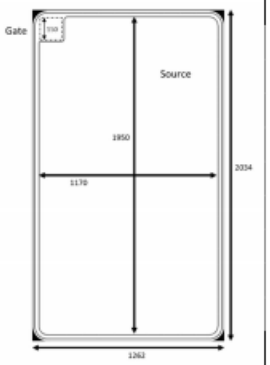
Electrical Characteristics in C/P Test (T_J at 25 ℃)

Symbol	Parameter	Min.	Typ.	Max.	Unit	Test Condition
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	30	—	—	V	V_{GS} =0V, I_D =250μA
$R_{DS(ON)}$	Static Drain-Source On-Resistance	—	3.4	5.1	mΩ	V_{GS} =10V, I_D =1A(2)
$R_{DS(ON)}$	Static Drain-Source On-Resistance	—	7.1	11	mΩ	V_{GS} =4.5V, I_D =1A(2)
$V_{GS\ (th)}$	Gate Threshold Voltage	1.0	—	2.5	V	V_{DS} =V_{GS}, I_D =250μA
I_{DSS}	Drain-to-Source Leakage Current	—	—	1	μA	V_{DS} =24V, V_{GS} =0V
I_{GSS}	Gate-Body Leakage Current	—	—	±100	nA	V_{DS} =0V, V_{GS} =±20V
T_J, T_{STG}	Operating and Storage Temperature	-55℃ to 150℃ Max.				

Mechanical Data

Chip Size	1262 μm X 2034 μm
Gate Pad Size	150 μm X 150 μm
Source Pad Size	1170 μm X 1950 μm
Scribe Line Width	60 μm
Wafer Thickness	150 μm
Wafer Diameter	200 mm
Gross Die	10365 EA
Source Metallization	Al-Cu (4μm typical)
Drain Metallization	Ti-Ni-Ag
Passivation	N/A
Recommended Storage Environment	Store in original container, in dry nitrogen, 6 months at ambient temperature of 23°C ± 3°C

Die Drawing



(1) This characteristic assumes the die is assembled in TO-252 package. Actual performance may degrade when assembled.

(2) Pulse Width tp = < 1 mS, Duty Cycle < 2%.