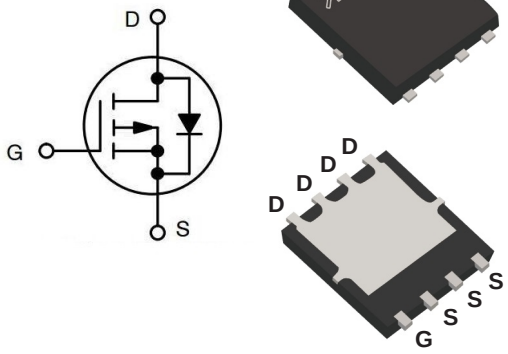
# SKQ18P02AD

## Feature

- 20V P-Channel MOSFET High Dense Design.
- Ultra low On-Resistance.
- $R_{DS(ON)}$ =9mΩ(typ.) @ $V_{GS}$= -4.5V
- $R_{DS(ON)}$ =13mΩ(typ.) @ $V_{GS}$= -2.5V
- Reliable and Rugged.

## Applications

- Power Management in Portable Equipment and Battery Powered Systems and other General Application.




PDFN5060

### 1. Absolute Maximum Ratings ($T_A$=25°C Unless Otherwise Noted)

| Symbol | Parameter | Rating | Unit |
|---|---|---|---|
| $V_{DSS}$ | Drain-Source Voltage | -20 | V |
| $V_{GSS}$ | Gate-Source Voltage | ±12 | |
| $I_D$ | Continue Drain Current | -18 | A |
| $I_{DM}$ | Pulsed Drain Current | -72 | |
| $I_S$ | Diode Continuous Forward Current | -18 | A |
| $T_J$ | Maximum Junction Temperature | 150 | °C |
| $T_{STG}$ | Storage Temperature Range | -55 to 150 | |
| $R_{\theta JA}$* | Thermal Resistance-Junction to Ambient(SOP8) | 62.5 | °C/W |

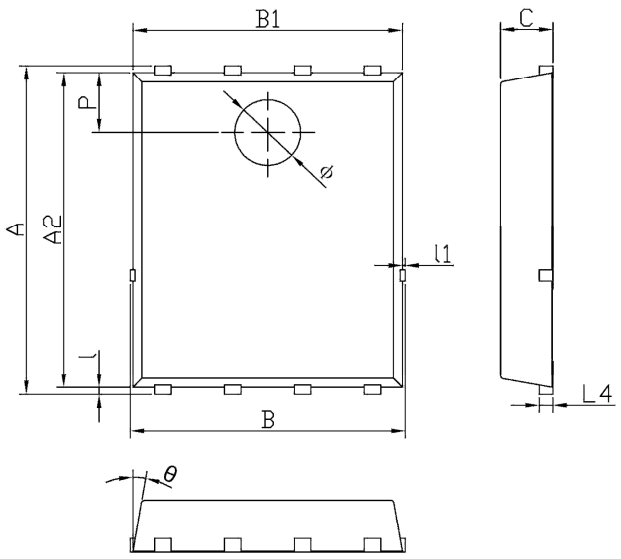
### 2. Static Electrical Characteristics ($T_A$=25°C Unless Otherwise Noted)

| Symbol | Parameter | Test Condition | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|---|
| **Static** | | | | | | |
| $BV_{DSS}$ | Drain-Source Breakdown Voltage | $V_{GS}$=0V, $I_{DS}$=-250μA | -20 | | | V |
| $I_{DSS}$ | Zero Gate Voltage Drain Current | $V_{DS}$=-16V, $V_{GS}$=0V | | | -1 | μA |
| | | $T_J$=85°C | | | -30 | |
| $V_{GS(th)}$ | Gate Threshold Voltage | $V_{DS}$=$V_{GS}$, $I_D$=250μA | -0.5 | -0.7 | -1 | V |
| $I_{GSS}$ | Gate Body Leakage Current | $V_{GS}$=±12V, $V_{DS}$=0V | | | ±100 | nA |
| $R_{DS(ON)}$ | Drain-Source On-state Resistance | $V_{GS}$=-4.5V, $I_{DS}$=-1A | | 9 | 12 | mΩ |
| | | $V_{GS}$=-2.5V, $I_{DS}$=-1A | | 13 | 16 | |
| $V_{SD}$ | Diode Forward Voltage | $I_{SD}$=-1A, $V_{GS}$=0V | | -0.7 | -1.3 | V |

*Note:
a : Current maybe limit by bonding wire.
b : The $R_{\Theta JA}$ is the sum of the thermal impedance from junction to ambient and depend on package type.

## PDFN5060

Unit:mm




| Dimensions In Millimeterer | | | |
|---|---|---|---|
| Symbol | MIN | TYP | MAX |
| A | 5.90 | 6.00 | 6.10 |
| a | 3.91 | 4.01 | 4.11 |
| A2 | 5.70 | 5.75 | 5.80 |
| B | 4.90 | 5.00 | 5.10 |
| b | 3.37 | 3.47 | 3.57 |
| B1 | 4.80 | 4.90 | 5.00 |
| C | 0.90 | 0.95 | 1.00 |
| L | 0.35 | 0.40 | 0.45 |
| l | 0.06 | 0.13 | 0.20 |
| L1 | 1.10 | – | – |
| l1 | – | – | 0.10 |
| L2 | 1.17 | 1.27 | 1.37 |
| L4 | 0.21 | 0.26 | 0.34 |
| L6 | 0.51 | 0.61 | 0.71 |
| L7 | 0.51 | 0.61 | 0.71 |
| P | 1.00 | 1.10 | 1.20 |
| θ | 8° | 10° | 12° |
| ϕ | 1.10 | 1.20 | 1.30 |