

FDMS0312AS

N-Channel PowerTrench® SyncFET™ 30V, 22A, 5.0mΩ

Product Overview

For complete documentation, see the data sheet.

The FDMS0312AS has been designed to minimize losses in power conversion application. Advancements in both silicon and package technologies have been combined to offer the lowest $rDS(on)$ while maintaining excellent switching performance. This device has the added benefit of an efficient monolithic Schottky body diode.

Features

- Max $rDS(on)$ = 5.0 mΩ at $V_{GS} = 10$ V, $I_D = 18$ A
- Max $rDS(on)$ = 6.2 mΩ at $V_{GS} = 4.5$ V, $I_D = 16$ A
- Advanced Package and Silicon combination for low $rDS(on)$ and high efficiency
- SyncFET Schottky Body Diode
- MSL1 robust package design
- 100% UIL tested
- RoHS Compliant

Applications

- Notebook PC

Part Electrical Specifications

| Product | Pricing (\$/Unit) | Compliance | Status | Channel Polarity | Configuration | $V_{DS}^{(BR)}$ Min (V) | V_{GS}^{Max} (V) | $V_{GS}^{(th)}$ Max (V) | I_D^{Max} (A) | P_D^{Max} (W) | $R_{DS(on)}^{Max}$ @ $V_{GS} = 2.5$ V (mΩ) | $R_{DS(on)}^{Max}$ @ $V_{GS} = 4.5$ V (mΩ) | $R_{DS(on)}^{Max}$ @ $V_{GS} = 10$ V (mΩ) | Q_g^{Typ} @ $V_{GS} = 4.5$ V (nC) | Q_g^{Typ} @ $V_{GS} = 10$ V (nC) | C_{iss}^{Typ} (pF) | Package Type |
|------------|-------------------|------------|--------|------------------|---------------|-------------------------|--------------------|-------------------------|-----------------|-----------------|--|--|---|-------------------------------------|------------------------------------|----------------------|--------------|
| FDMS0312AS | 0.1879 | | Active | N-Channel | Single | 30 | 20 | 3 | 22 | 36 | - | 6.2 | 5 | - | 11 | 1365 | PQFN-8 |