



## PHD101NQ03LT,118 Information



For Reference Only

Part Number PHD101NQ03LT,118 Manufacturer Nexperia USA Inc.

Category Discrete Semiconductor Products

Transistors - FETs, MOSFETs - Single

**Description** MOSFET N-CH 30V 75A DPAK

Package TO-252-3, DPak (2 Leads + Tab), SC-63

For the pricing/inventory/lead time, please contact

us

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# PHD101NQ03LT,118 Specifications

| Manufacturer Part Number         PHD101NQ03LT,118           Manufacturer         Nexperia USA Inc.           Category         Discrete Semiconductor Products           Transistors - FETs, MOSFETs - Single           Package         TO-252-3, DPak (2 Leads + Tab), SC-63           Series         TrenchMOS?           FET Type         N-Channel           Technology         MOSFET (Metal Oxide)           Drain to Source Voltage (Vdss)         30V           Current - Continuous Drain (Id) @ 25°C         75A (Tc)           Drive Voltage (Max Rds On, Min Rds On)         5V, 10V           Vgs(th) (Max) @ Id         2.5V @ 1mA           Gate Charge (Qg) (Max) @ Vgs         23nC @ 5V           Input Capacitance (Ciss) (Max) @ Vds         2180pF @ 25V           Vgs (Max)         ±20V           FET Feature         -           Power Dissipation (Max)         166W (Tc)           Rds On (Max) @ Id, Vgs         5.5 mOhm @ 25A, 10V           Operating Temperature         -55°C ~ 175°C (TJ)           Mounting Type         Surface Mount           Supplier Device Package         DPAK           Package / Case         TO-252-3, DPak (2 Leads + Tab), SC-63           Report errors?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                        |                                       |
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| Category Discrete Semiconductor Products Transistors - FETs, MOSFETs - Single Package TO-252-3, DPak (2 Leads + Tab), SC-63 Series TrenchMOS? FET Type N-Channel Technology MOSFET (Metal Oxide) Drain to Source Voltage (Vdss) 30V Current - Continuous Drain (Id) @ 25°C 75A (Tc) Drive Voltage (Max Rds On, Min Rds On) 5V, 10V Vgs(th) (Max) @ Id 2.5V @ ImA Gate Charge (Qg) (Max) @ Vgs 23nC @ 5V Input Capacitance (Ciss) (Max) @ Vds 2180pF @ 25V Vgs (Max) ±20V FET Feature - Power Dissipation (Max) 166W (Tc) Rds On (Max) @ Id, Vgs 5.5 mOhm @ 25A, 10V Operating Temperature -55°C ~ 175°C (TJ) Mounting Type Surface Mount Supplier Device Package DPAK Package / Case Tro-252-3, DPak (2 Leads + Tab), SC-63                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Manufacturer Part Number               | PHD101NQ03LT,118                      |
| Transistors - FETs, MOSFETs - Single                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Manufacturer                           | Nexperia USA Inc.                     |
| Package         TO-252-3, DPak (2 Leads + Tab), SC-63           Series         TrenchMOS?           FET Type         N-Channel           Technology         MOSFET (Metal Oxide)           Drain to Source Voltage (Vdss)         30V           Current - Continuous Drain (Id) @ 25°C         75A (Tc)           Drive Voltage (Max Rds On, Min Rds On)         5V, 10V           Vgs(th) (Max) @ Id         2.5V @ ImA           Gate Charge (Qg) (Max) @ Vgs         23nC @ 5V           Input Capacitance (Ciss) (Max) @ Vds         2180pF @ 25V           Vgs (Max)         ±20V           FET Feature         -           Power Dissipation (Max)         166W (Tc)           Rds On (Max) @ Id, Vgs         5.5 mOhm @ 25A, 10V           Operating Temperature         -55°C ~ 175°C (TJ)           Mounting Type         Surface Mount           Supplier Device Package         DPAK           Package / Case         TO-252-3, DPak (2 Leads + Tab), SC-63                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Category                               | Discrete Semiconductor Products       |
| SeriesTrenchMOS?FET TypeN-ChannelTechnologyMOSFET (Metal Oxide)Drain to Source Voltage (Vdss)30VCurrent - Continuous Drain (Id) @ 25°C75A (Tc)Drive Voltage (Max Rds On, Min Rds On)5V, 10VVgs(th) (Max) @ Id2.5V @ 1mAGate Charge (Qg) (Max) @ Vgs23nC @ 5VInput Capacitance (Ciss) (Max) @ Vds2180pF @ 25VVgs (Max)±20VFET Feature-Power Dissipation (Max)166W (Tc)Rds On (Max) @ Id, Vgs5.5 mOhm @ 25A, 10VOperating Temperature-55°C ~ 175°C (TJ)Mounting TypeSurface MountSupplier Device PackageDPAKPackage / CaseTO-252-3, DPak (2 Leads + Tab), SC-63                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                        | Transistors - FETs, MOSFETs - Single  |
| FET Type  Rochannel  Technology  MOSFET (Metal Oxide)  MOSFET (Metal Oxide)  30V  Current - Continuous Drain (Id) @ 25°C  75A (Tc)  Drive Voltage (Max Rds On, Min Rds On)  Vgs(th) (Max) @ Id  Cate Charge (Qg) (Max) @ Vgs  Input Capacitance (Ciss) (Max) @ Vds  Vgs (Max)  ET Feature  Power Dissipation (Max)  Rds On (Max) @ Id, Vgs  Operating Temperature  -55°C ~ 175°C (TJ)  Mounting Type  Surface Mount  Supplier Device Package  Package / Case  N-Channel  N-Channel  MOSFET (Metal Oxide)  30V  AUSSFET (Metal Oxide)  30V  75A (Tc)  75A (Tc)  75A (Tc)  75A (Tc)  75A (Tc)  10V  2.5V @ ImA  2.5V @ ImA  2.5V @ ImA  2.5V @ 1mA  2.5V @ 1ov  3.1C @ 5V  3 | Package                                | TO-252-3, DPak (2 Leads + Tab), SC-63 |
| Technology  Drain to Source Voltage (Vdss)  Current - Continuous Drain (Id) @ 25°C  75A (Tc)  Drive Voltage (Max Rds On, Min Rds On)  Vgs(th) (Max) @ Id  Gate Charge (Qg) (Max) @ Vgs  Input Capacitance (Ciss) (Max) @ Vds  Vgs (Max)  **ET Feature**  Power Dissipation (Max)  Rds On (Max) @ Id, Vgs  Derating Temperature  **Operating Temperature**  Mounting Type  Surface Mount  Supplier Device Package  Package / Case  **MOSFET (Metal Oxide)  30V  **MOSFET (Metal Oxide)  **AUV  **Top  **Operating Index on (Max) & 100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Series                                 | TrenchMOS?                            |
| Drain to Source Voltage (Vdss)  Current - Continuous Drain (Id) @ 25°C  75A (Tc)  75A (Tc)  Drive Voltage (Max Rds On, Min Rds On)  Vgs(th) (Max) @ Id  Cate Charge (Qg) (Max) @ Vgs  Input Capacitance (Ciss) (Max) @ Vds  Vgs (Max)  FET Feature  Power Dissipation (Max)  Rds On (Max) @ Id, Vgs  Operating Temperature  Surface Mount  Supplier Device Package  Package / Case  30V  75A (Tc)  | FET Type                               | N-Channel                             |
| Current - Continuous Drain (Id) @ 25°C  Drive Voltage (Max Rds On, Min Rds On)  Vgs(th) (Max) @ Id  Cate Charge (Qg) (Max) @ Vgs  Input Capacitance (Ciss) (Max) @ Vds  Vgs (Max)  FET Feature  Power Dissipation (Max)  Rds On (Max) @ Id, Vgs  Derating Temperature  For Temperature  -55°C ~ 175°C (TJ)  Mounting Type  Surface Mount  Supplier Device Package  Package / Case  75A (Tc)  75A ( | Technology                             | MOSFET (Metal Oxide)                  |
| Drive Voltage (Max Rds On, Min Rds On)  Vgs(th) (Max) @ Id  2.5V @ 1mA  Gate Charge (Qg) (Max) @ Vgs  Input Capacitance (Ciss) (Max) @ Vds  Vgs (Max)  ±20V  FET Feature  Power Dissipation (Max)  Id6W (Tc)  Rds On (Max) @ Id, Vgs  5.5 mOhm @ 25A, 10V  Operating Temperature  -55°C ~ 175°C (TJ)  Mounting Type  Surface Mount  Supplier Device Package  Package / Case  TO-252-3, DPak (2 Leads + Tab), SC-63                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Drain to Source Voltage (Vdss)         | 30V                                   |
| Vgs(th) (Max) @ Id  Gate Charge (Qg) (Max) @ Vgs  Input Capacitance (Ciss) (Max) @ Vds  Vgs (Max)  +20V  FET Feature  Power Dissipation (Max)  Rds On (Max) @ Id, Vgs  Operating Temperature  Found Temperature  Surplier Device Package  DPAK  Package / Case  2.5V @ 1mA  2. | Current - Continuous Drain (Id) @ 25°C | 75A (Tc)                              |
| Gate Charge (Qg) (Max) @ Vgs  Input Capacitance (Ciss) (Max) @ Vds  2180pF @ 25V  Vgs (Max)  ±20V  FET Feature  - Power Dissipation (Max)  Rds On (Max) @ Id, Vgs  5.5 mOhm @ 25A, 10V  Operating Temperature  -55°C ~ 175°C (TJ)  Mounting Type  Surface Mount  Supplier Device Package  DPAK  Package / Case  TO-252-3, DPak (2 Leads + Tab), SC-63                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Drive Voltage (Max Rds On, Min Rds On) | 5V, 10V                               |
| Input Capacitance (Ciss) (Max) @ Vds  2180pF @ 25V  Vgs (Max)  ±20V  FET Feature  - Power Dissipation (Max)  166W (Tc)  Rds On (Max) @ Id, Vgs  5.5 mOhm @ 25A, 10V  Operating Temperature  -55°C ~ 175°C (TJ)  Mounting Type  Surface Mount  Supplier Device Package  DPAK  Package / Case  TO-252-3, DPak (2 Leads + Tab), SC-63                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Vgs(th) (Max) @ Id                     | 2.5V @ 1mA                            |
| Vgs (Max) $\pm 20 \text{V}$ FET Feature-Power Dissipation (Max) $166 \text{W}$ (Tc)Rds On (Max) @ Id, Vgs $5.5 \text{ mOhm}$ @ $25 \text{A}$ , $10 \text{V}$ Operating Temperature $-55^{\circ}\text{C} \sim 175^{\circ}\text{C}$ (TJ)Mounting TypeSurface MountSupplier Device PackageDPAKPackage / CaseTO-252-3, DPak (2 Leads + Tab), SC-63                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Gate Charge (Qg) (Max) @ Vgs           | 23nC @ 5V                             |
| FET Feature -  Power Dissipation (Max) 166W (Tc)  Rds On (Max) @ Id, Vgs 5.5 mOhm @ 25A, 10V  Operating Temperature -55°C ~ 175°C (TJ)  Mounting Type Surface Mount  Supplier Device Package DPAK  Package / Case TO-252-3, DPak (2 Leads + Tab), SC-63                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Input Capacitance (Ciss) (Max) @ Vds   | 2180pF @ 25V                          |
| Power Dissipation (Max)  Rds On (Max) @ Id, Vgs  5.5 mOhm @ 25A, 10V  Operating Temperature  -55°C ~ 175°C (TJ)  Mounting Type  Surface Mount  Supplier Device Package  DPAK  Package / Case  TO-252-3, DPak (2 Leads + Tab), SC-63                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Vgs (Max)                              | ±20V                                  |
| Rds On (Max) @ Id, Vgs5.5 mOhm @ 25A, 10VOperating Temperature-55°C ~ 175°C (TJ)Mounting TypeSurface MountSupplier Device PackageDPAKPackage / CaseTO-252-3, DPak (2 Leads + Tab), SC-63                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | FET Feature                            | -                                     |
| Operating Temperature  -55°C ~ 175°C (TJ)  Mounting Type  Surface Mount  Supplier Device Package  DPAK  Package / Case  TO-252-3, DPak (2 Leads + Tab), SC-63                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Power Dissipation (Max)                | 166W (Tc)                             |
| Mounting Type Surface Mount  Supplier Device Package DPAK  Package / Case TO-252-3, DPak (2 Leads + Tab), SC-63                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Rds On (Max) @ Id, Vgs                 | 5.5 mOhm @ 25A, 10V                   |
| Supplier Device Package DPAK Package / Case TO-252-3, DPak (2 Leads + Tab), SC-63                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Operating Temperature                  | -55°C ~ 175°C (TJ)                    |
| Package / Case TO-252-3, DPak (2 Leads + Tab), SC-63                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Mounting Type                          | Surface Mount                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Supplier Device Package                | DPAK                                  |
| Report errors?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Package / Case                         | TO-252-3, DPak (2 Leads + Tab), SC-63 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                        | Report errors?                        |

### PHD101NQ03LT,118 Guarantees



#### **Quality Guarantees**

We provide 90 days warranty. \*

If the items you received were not in perfect quality, we would be responsible for your refund or replacement, but the items must be returned in their original condition.



#### **Service Guarantees**

We guarantee 100% customer satisfaction.

Our experienced sales team and tech support team back our services to satisfy all our customers.

### PHD101NQ03LT,118 Payment Methods



















## PHD101NQ03LT,118 Shipping Methods













If you have any question about PHD101NQ03LT,118, please do not hesitate to contact us!

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