

Product Summary

| $V_{(BR)DSS}$ | $R_{DS(on)TYP}$ | I_D |
|---------------|-----------------|-------|
| -30V | 18mΩ@-10V | -9.1A |
| | 26mΩ@-4.5V | |

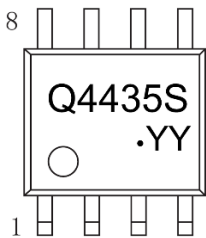
Feature

- TrenchFET Power MOSFET
- Excellent $R_{DS(on)}$
- Low Gate Charge

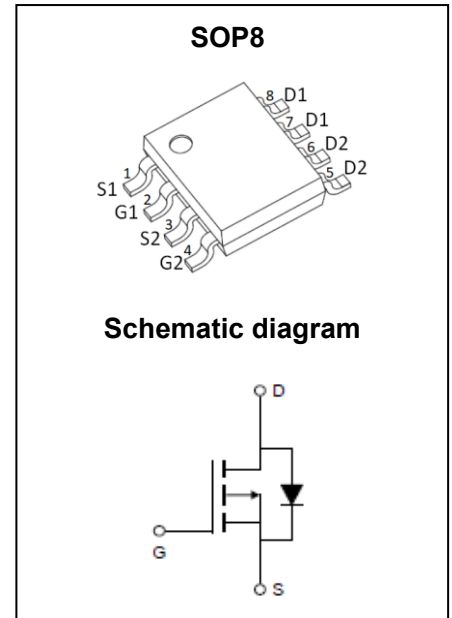
Application

- Load Switch for Portable Devices
- Battery Switch

MARKING:



Q4435S = Device code
 YY = Date Code
 Solid dot = Pin1 indicator
 Solid dot = Green molding compound device,
 If none, the normal device.



ABSOLUTE MAXIMUM RATINGS ($T_a=25^{\circ}C$ unless otherwise noted)

| Parameter | Symbol | Value | Unit |
|---|-----------------|-----------|---------------|
| Drain-Source Voltage | V_{DS} | -30 | V |
| Gate-Source Voltage | V_{GS} | ± 20 | V |
| Continuous Drain Current | I_D | -9.1 | A |
| Pulsed Drain Current | I_{DM} | -27 | A |
| Power Dissipation | P_D | 1.4 | W |
| Thermal Resistance from Junction to Ambient($t \leq 10s$) | $R_{\theta JA}$ | 89 | $^{\circ}C/W$ |
| Junction Temperature | T_J | 150 | $^{\circ}C$ |
| Storage Temperature | T_{STG} | -55~ +150 | $^{\circ}C$ |

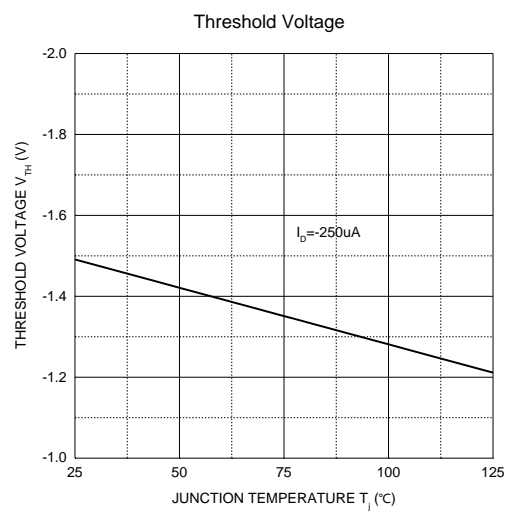
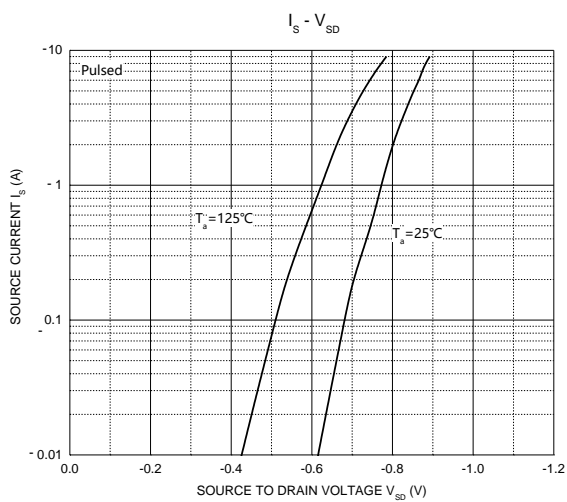
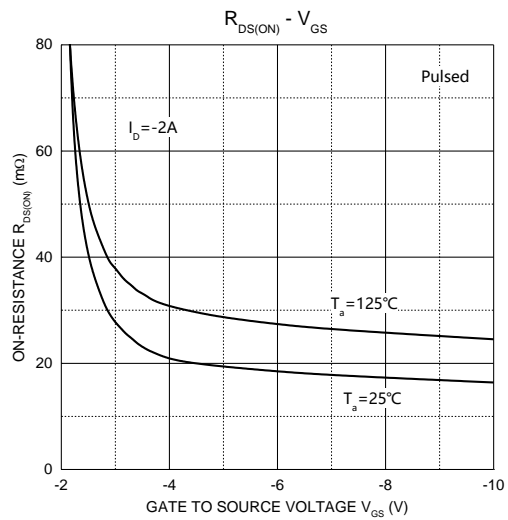
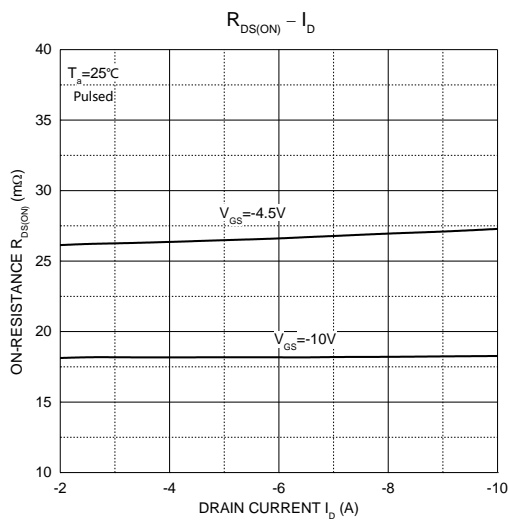
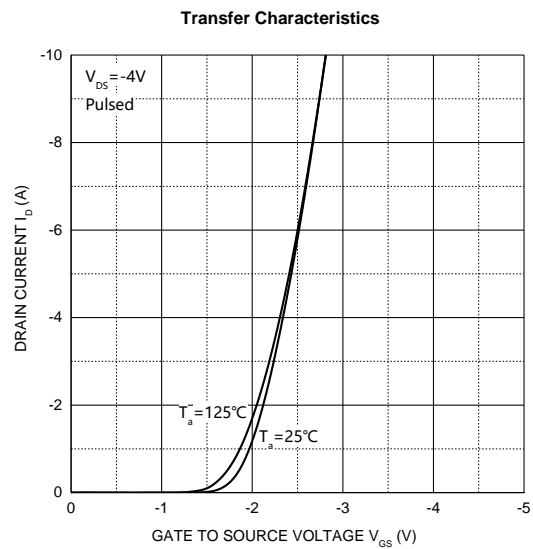
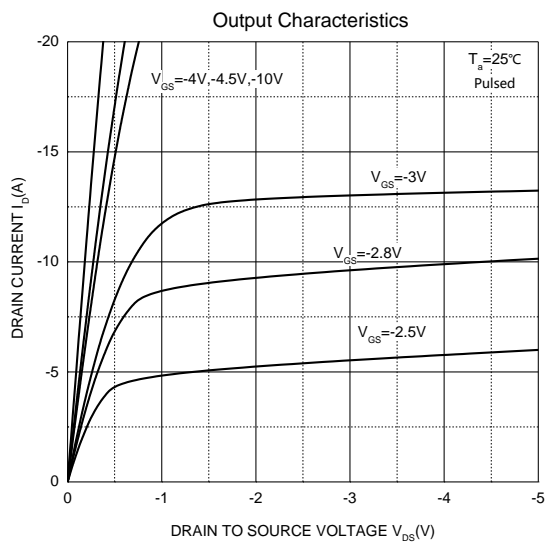
MOSFET ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise noted)

| Parameter | Symbol | Test Condition | Min | Type | Max | Unit |
|---|----------------------|--|------|------|------|------|
| Static Characteristics | | | | | | |
| Drain-source breakdown voltage | V _{(BR)DSS} | V _{GS} = 0V, I _D = -250μA | -30 | | | V |
| Zero gate voltage drain current | I _{DSS} | V _{DS} = -30V, V _{GS} = 0V | | | -1 | μA |
| Gate-body leakage current | I _{GSS} | V _{GS} = ±20V, V _{DS} = 0V | | | ±0.1 | μA |
| On characteristics⁽¹⁾ | | | | | | |
| Gate threshold voltage | V _{GS(th)} | V _{DS} = V _{GS} , I _D = -250μA | -1.0 | -1.5 | -3.0 | V |
| Drain-source on-resistance | R _{DS(on)} | V _{GS} = -10V, I _D = -9.1A | | 18 | 24 | mΩ |
| | | V _{GS} = -4.5V, I _D = -6.9A | | 26 | 35 | |
| Forward transconductance | g _{FS} | V _{DS} = -10V, I _D = -9.1A | | 12 | | S |
| Dynamic characteristics⁽²⁾ | | | | | | |
| Input capacitance | C _{iSS} | V _{DS} = -15V, V _{GS} = 0V, f = 1MHz | | 1400 | | pF |
| Output capacitance | C _{oSS} | | | 163 | | |
| Reverse transfer capacitance | C _{rSS} | | | 145 | | |
| Switching characteristics⁽²⁾ | | | | | | |
| Total gate charge | Q _g | V _{DS} = -15V, V _{GS} = -4.5V, I _D = -9.1A | | | 25 | nC |
| Gate-source charge | Q _{gs} | | | | 7 | |
| Gate-drain charge | Q _{gd} | | | | 12 | |
| Turn-on delay time | t _{d(on)} | V _{DD} = -15V, I _D = -1A, V _{GS} = -10V, R _G = 1Ω, R _L = 15Ω | | | 15 | ns |
| Turn-on rise time | t _r | | | | 15 | |
| Turn-off delay time | t _{d(off)} | | | | 70 | |
| Turn-off fall time | t _f | | | | 25 | |
| Drain-Source Diode Characteristics | | | | | | |
| Drain-source diode forward voltage ⁽¹⁾ | V _{SD} | V _{GS} = 0V, I _S = -2A | | | -1.2 | V |
| Continuous drain-source diode forward current | I _S | | | | -9.1 | A |
| Pulsed drain-source diode forward current | I _{SM} | | | | -27 | |

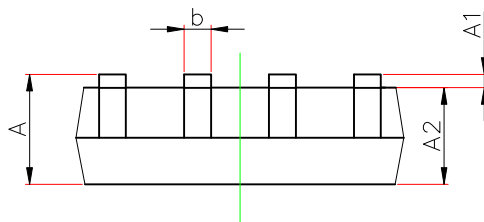
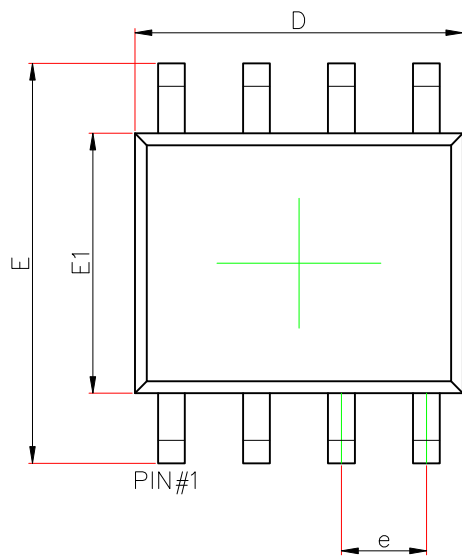
Notes:

1. Pulse test; pulse width ≤ 300μs, duty cycle ≤ 2%.
2. Guaranteed by design, not subject to production testing.

Typical Electrical and Thermal Characteristics



SOP8 Package Information



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|-------|----------------------|-------|
| | Min. | Max. | Min. | Max. |
| A | 1.350 | 1.750 | 0.053 | 0.069 |
| A1 | 0.100 | 0.250 | 0.004 | 0.010 |
| A2 | 1.350 | 1.550 | 0.053 | 0.061 |
| b | 0.330 | 0.510 | 0.013 | 0.020 |
| c | 0.156 | 0.250 | 0.006 | 0.010 |
| D | 4.700 | 5.100 | 0.185 | 0.201 |
| e | 1.270(BSC) | | 0.050(BSC) | |
| E | 5.800 | 6.200 | 0.228 | 0.244 |
| E1 | 3.700 | 4.100 | 0.146 | 0.161 |
| L | 0.400 | 1.270 | 0.016 | 0.05 |
| θ | 0° | 8° | 0° | 8° |

单击下面可查看定价，库存，交付和生命周期等信息

[>>GP\(格瑞宝\)](#)