

Product Summary

| $V_{(BR)DSS}$ | $R_{DS(on)TYP}$ | I_D |
|---------------|-----------------|-------|
| -30V | 17mΩ@-10V | -8A |
| | 23mΩ@-4.5V | |

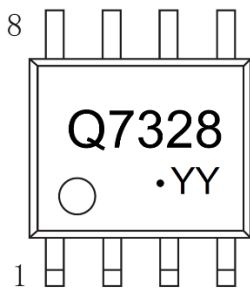
Feature

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

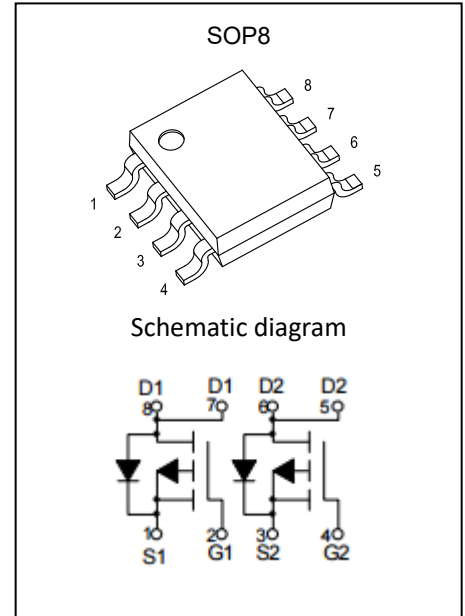
Application

- Load Switch for Portable Devices
- Battery Switch

MARKING:



Q7328 = 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 | -8 | A |
| Plused Drain Current ¹ | I_{DM} | -32 | A |
| Power Dissipation ² | P_D | 1.25 | W |
| Thermal Resistance from Junction to Ambient ² | $R_{\theta JA}$ | 100 | $^{\circ}C/W$ |
| Junction Temperature | T_J | 150 | $^{\circ}C$ |
| Storage Temperature | T_{STG} | -55~ +150 | $^{\circ}C$ |

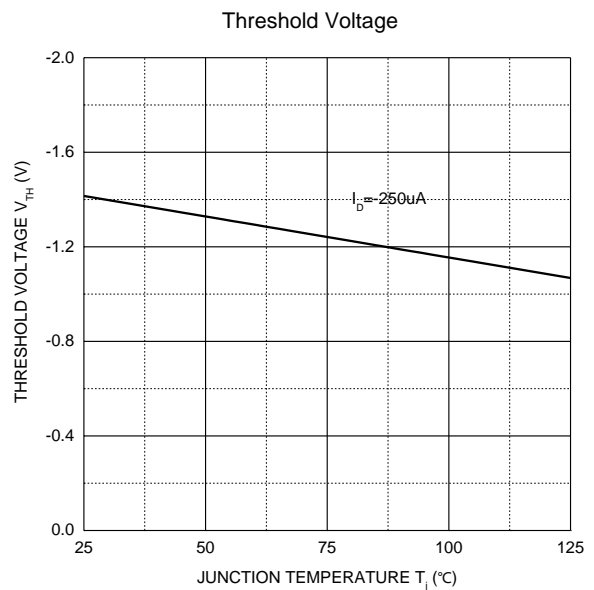
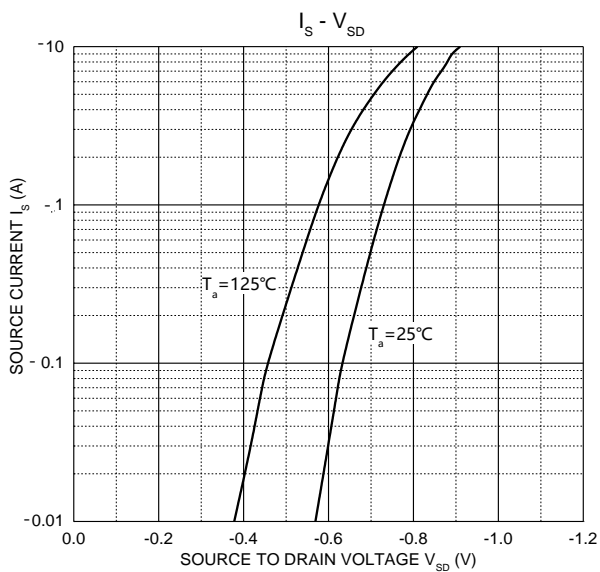
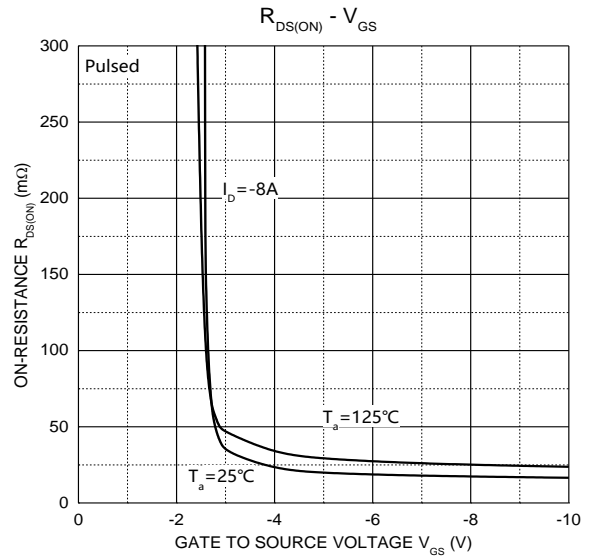
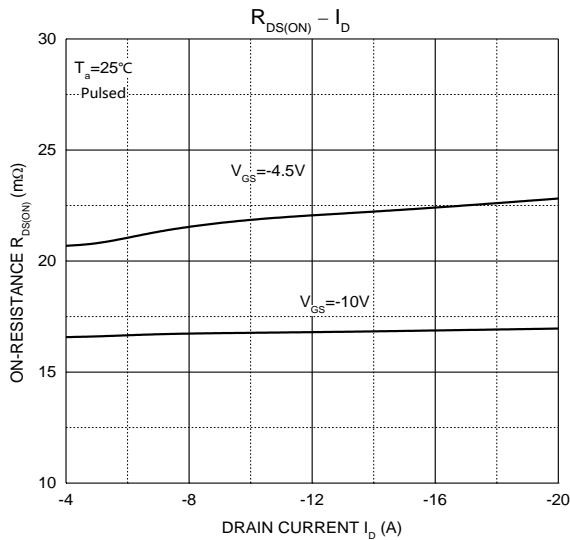
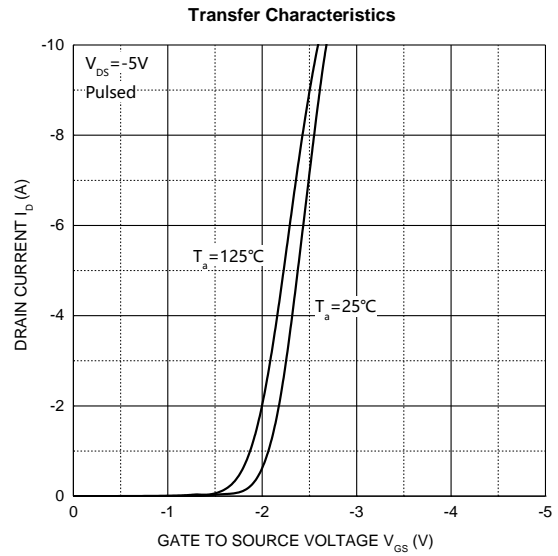
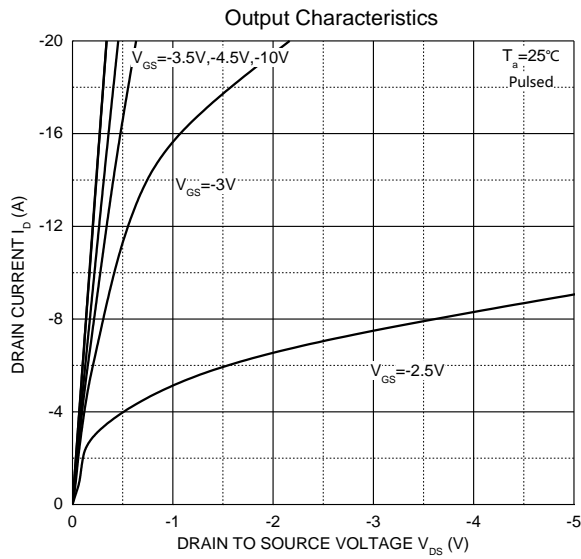
MOSFET ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise noted)

| Parameter | Symbol | Test Condition | Min | Type | Max | Unit |
|--|----------------------|---|------|-------|------|------|
| Static Characteristics | | | | | | |
| Drain-source breakdown voltage | V _{(BR)DSS} | V _{GS} = 0V, I _D = -250μA | -31 | | | V |
| Zero gate voltage drain current | I _{DSS} | V _{DS} = -24V, V _{GS} = 0V | | | -1 | μA |
| Gate-body leakage current | I _{GSS} | V _{GS} = ±20V, V _{DS} = 0V | | | ±100 | nA |
| Gate threshold voltage | V _{GS(th)} | V _{DS} = V _{GS} , I _D = -250μA | -1.0 | -1.4 | -2.5 | V |
| Drain-source on-resistance ³ | R _{DS(on)} | V _{GS} = -10V, I _D = -8A | | 17 | 21 | mΩ |
| | | V _{GS} = -4.5V, I _D = -6.8A | | 23 | 32 | |
| Forward tranconductance | g _{FS} | V _{DS} = -10V, I _D = -8A | 10 | 14 | | S |
| Dynamic characteristics⁴ | | | | | | |
| Input Capacitance | C _{iSS} | V _{DS} = -15V, V _{GS} = 0V, f = 1MHz | | 1700 | | pF |
| Output Capacitance | C _{oss} | | | 235 | | |
| Reverse Transfer Capacitance | C _{rSS} | | | 200 | | |
| Total gate charge | Q _g | V _{DS} = -15V, V _{GS} = -10V, I _D = -8A | | | 78 | nC |
| Gate-source charge | Q _{gs} | | | | 15 | |
| Gate-drain charge | Q _{gd} | | | | 13 | |
| Turn-on delay time | t _{d(on)} | V _{DD} = -15V, R _D = 15Ω, I _D = -1A, V _{GNE} = -10V, R _G = 6Ω | | | 20 | ns |
| Turn-on rise time | t _r | | | | 23 | |
| Turn-off delay time | t _{d(off)} | | | | 250 | |
| Turn-off fall time | t _f | | | | 140 | |
| Drain-Source Body Diode Characteristics | | | | | | |
| Diode Forward Voltage ³ | V _{SD} | I _S = -2A, V _{GS} = 0V | | -0.73 | -1.2 | V |

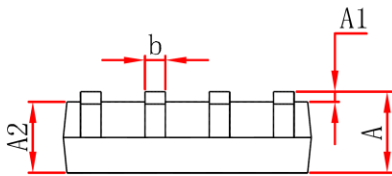
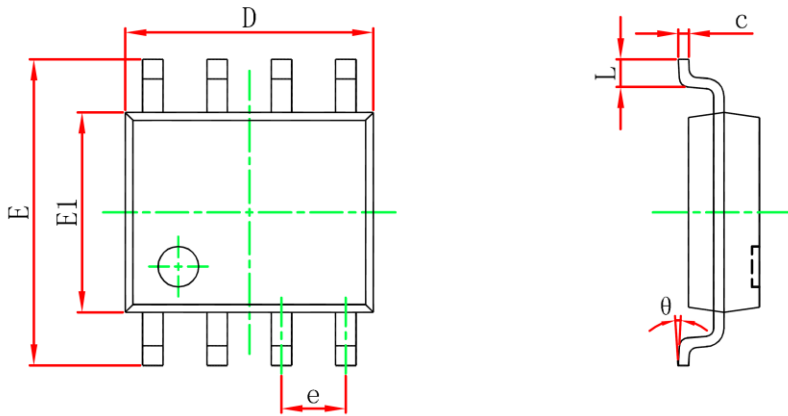
Notes:

1. Repetitive rating : Pulse width limited by junction temperature.
2. Surface mounted on 1"×1" FR4 board, t_s ≤ 10s.
3. Pulse Test : Pulse Width ≤ 300μs, Duty Cycle ≤ 2%.
4. Guaranteed by design, not subject to production testing.

Typical Electrical and Thermal Characteristics



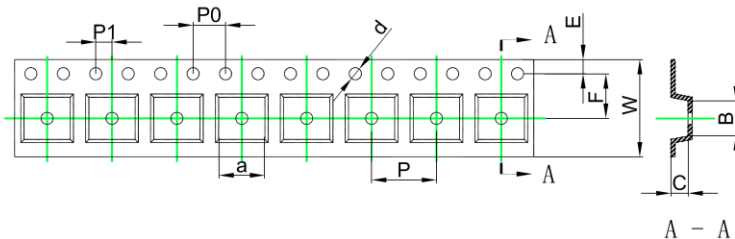
SOP8 Package Information



| 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 | 0.170 | 0.250 | 0.007 | 0.010 |
| D | 4.800 | 5.000 | 0.189 | 0.197 |
| e | 1.270 (BSC) | | 0.050 (BSC) | |
| E | 5.800 | 6.200 | 0.228 | 0.244 |
| E1 | 3.800 | 4.000 | 0.150 | 0.157 |
| L | 0.400 | 1.270 | 0.016 | 0.050 |
| θ | 0° | 8° | 0° | 8° |

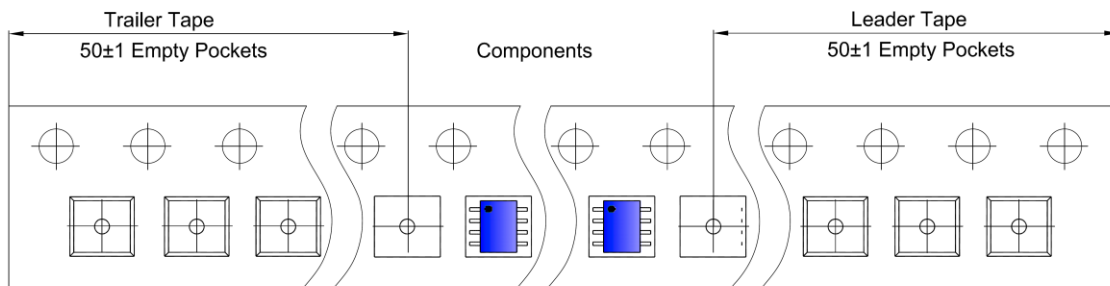
SOP8 Tape and Reel

SOP8 Embossed Carrier Tape

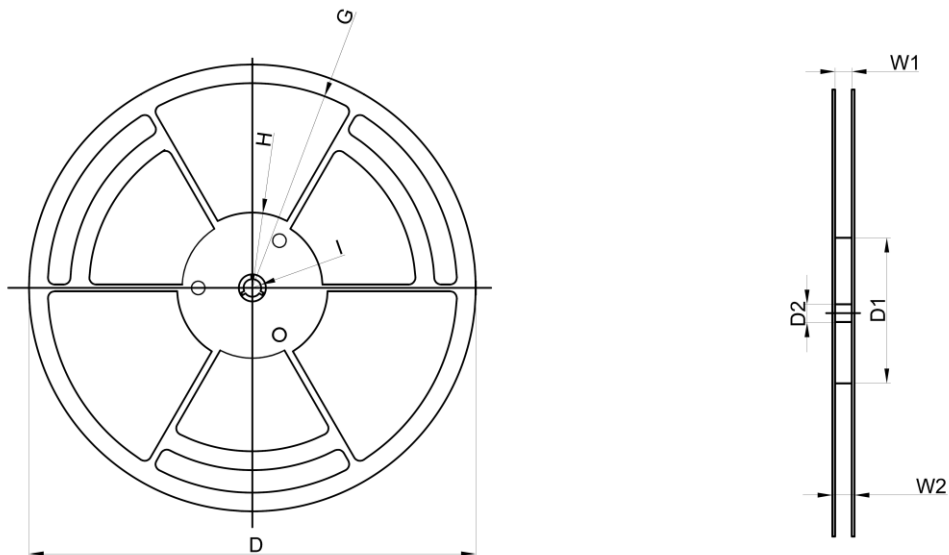


| Dimensions are in millimeter | | | | | | | | | | |
|------------------------------|------|------|------|-------|------|------|------|------|------|-------|
| Pkg type | a | B | C | d | E | F | P0 | P | P1 | W |
| SOP8 | 6.40 | 5.40 | 2.10 | Ø1.50 | 1.75 | 5.50 | 4.00 | 8.00 | 2.00 | 12.00 |

SOP8 Tape Leader and Trailer



SOP8 Reel



| Dimensions are in millimeter | | | | | | | | | |
|------------------------------|---------|--------|-------|---------|--------|-------|-------|-------|--|
| Reel Option | D | D1 | D2 | G | H | I | W1 | W2 | |
| 13" Dia | Ø330.00 | 100.00 | 13.00 | R151.00 | R56.00 | R6.50 | 12.40 | 17.60 | |

| REEL | Reel Size | Box | Box Size(mm) | Carton | Carton Size(mm) | G.W.(kg) |
|-----------|-----------|-----------|--------------|------------|-----------------|----------|
| 4,000 pcs | 13 inch | 8,000 pcs | 360×360×65 | 64,000 pcs | 565×380×390 | |

单击下面可查看定价，库存，交付和生命周期等信息

[>>GP\(格瑞宝\)](#)