



Product Summary

| $V_{(BR)DSS}$ | $R_{DS(on)TYP}$ | I_D |
|---------------|-----------------|-------|
| 60V | 0.9Ω@10V | 115mA |
| | 1.1Ω@5V | |

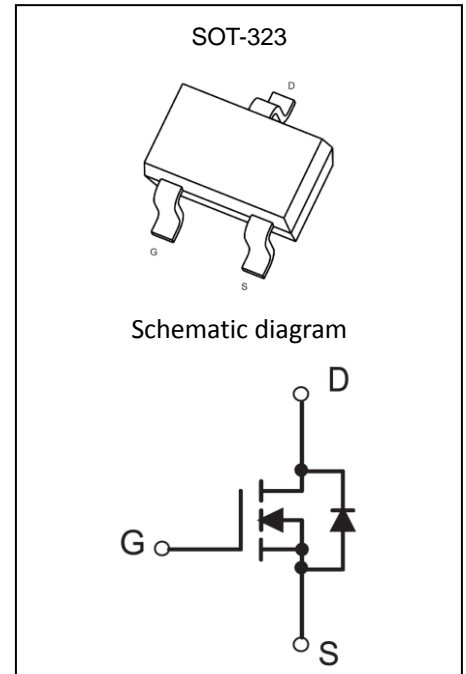
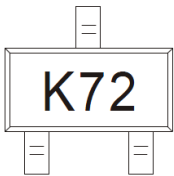
Feature

- High density cell design for Low $R_{DS(on)}$
- Voltage controlled small signal switch
- Rugged and reliable

Application

- DC/DC Converter
- Load Switch for Portable Devices

MARKING:



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

| Parameter | Symbol | Value | Unit |
|---|-----------------|-----------|---------------------------|
| Drain-Source Voltage | V_{DS} | 60 | V |
| Gate-Source Voltage | V_{GS} | ± 20 | V |
| Continuous Drain Current | I_D | 115 | mA |
| Power Dissipation | P_D | 0.2 | W |
| Thermal Resistance from Junction to Ambient | $R_{\theta JA}$ | 625 | $^\circ\text{C}/\text{W}$ |
| Junction Temperature | T_J | 150 | $^\circ\text{C}$ |
| Storage Temperature | T_{STG} | -55~ +150 | $^\circ\text{C}$ |

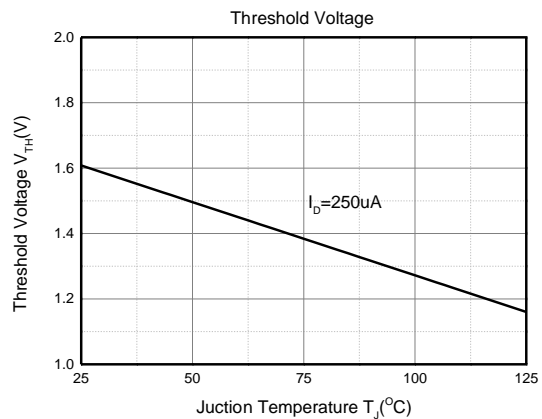
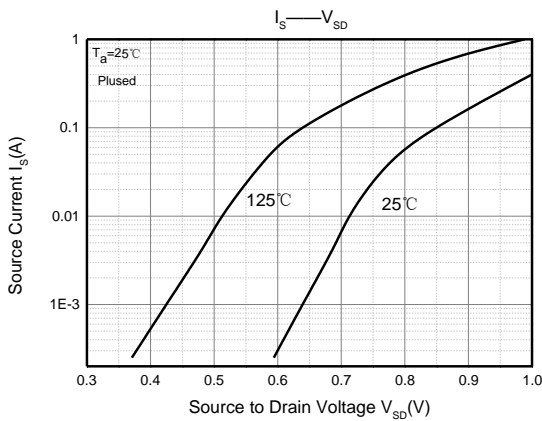
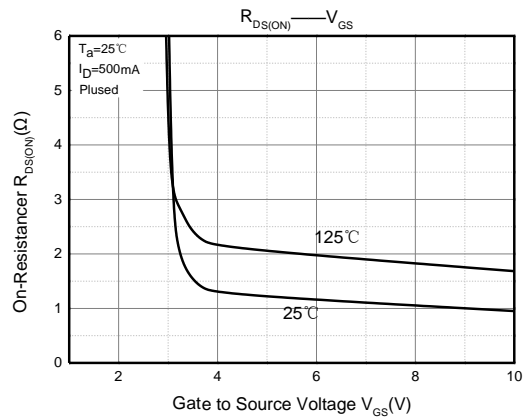
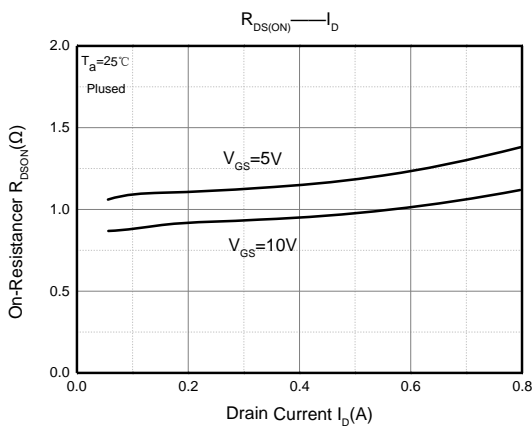
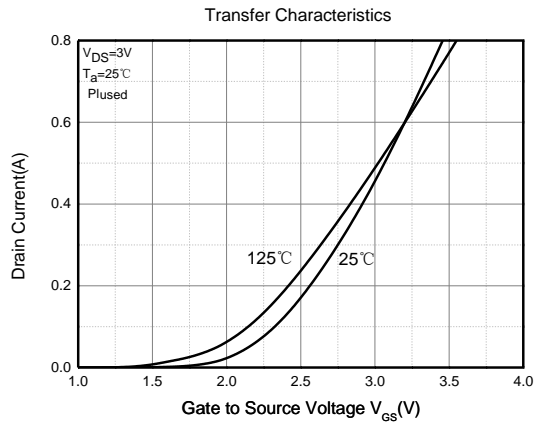
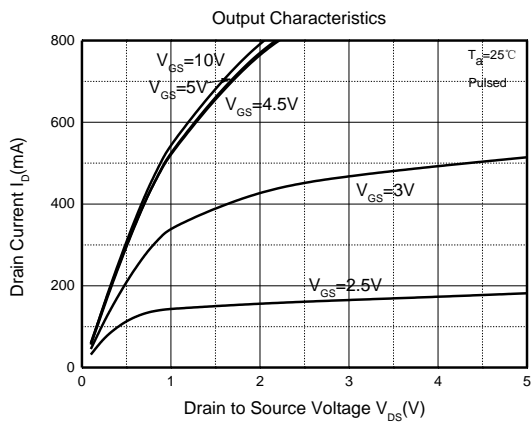
MOSFET ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless otherwise noted)

| Parameter | Symbol | Test Condition | Min | Type | Max | Unit |
|--|---------------|--|-----|------|----------|----------|
| Static Characteristics | | | | | | |
| Drain-source breakdown voltage | $V_{(BR)DSS}$ | $V_{GS} = 0V, I_D = 250\mu A$ | 60 | | | V |
| Zero gate voltage drain current | I_{DSS} | $V_{DS} = 60V, V_{GS} = 0V$ | | | 80 | nA |
| Gate-body leakage current | I_{GSS} | $V_{GS} = \pm 20V, V_{DS} = 0V$ | | | ± 80 | nA |
| On-state drain current | $I_{D(on)}$ | $V_{GS} = 10V, V_{DS} = 7V$ | 500 | | | mA |
| Gate threshold voltage ² | $V_{GS(th)}$ | $V_{DS} = V_{GS}, I_D = 250\mu A$ | 1 | 1.6 | 2.5 | V |
| Drain-source on-resistance ² | $R_{DS(on)}$ | $V_{GS} = 10V, I_D = 500mA$ | | 0.9 | 2.5 | Ω |
| | | $V_{GS} = 5V, I_D = 50mA$ | | 1.1 | 3.0 | |
| Forward Trans conductance | gfs | $V_{DS} = 10V, I_D = 200mA$ | 80 | | | ms |
| Drain-source on-voltage | $V_{DS(on)}$ | $V_{GS} = 10V, I_D = 500mA$ | | | 3.75 | V |
| | | $V_{GS} = 5V, I_D = 50mA$ | | | 0.375 | |
| Dynamic characteristics² | | | | | | |
| Input Capacitance | C_{iss} | $V_{DS} = 25V, V_{GS} = 0V, f = 1MHz$ | | 37 | 50 | pF |
| Output Capacitance | C_{oss} | | 8.7 | 25 | | |
| Reverse Transfer Capacitance | C_{rss} | | 3.1 | 5 | | |
| Gate resistance | R_g | $V_{DS} = 0V, V_{GS} = 0V, f = 1MHz$ | | 44 | | Ω |
| Switching Characteristics² | | | | | | |
| Turn-on delay time | $t_{d(on)}$ | $V_{DD} = 25V, R_G = 25\Omega, R_L = 50\Omega, V_{GEN} = 10V, I_D = 500mA$ | | | 20 | ns |
| Turn-off delay time | $t_{d(off)}$ | | | | 40 | |
| Source-Drain Diode characteristics | | | | | | |
| Diode Forward voltage ² | V_{SD} | $V_{GS} = 0V, I_S = 115mA$ | 0.5 | | 1.2 | V |

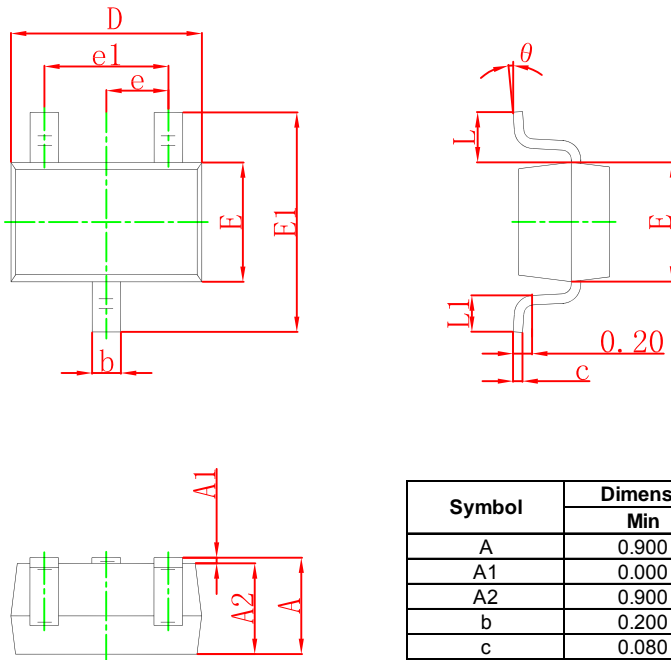
Notes:

1. Pulse Test : Pulse width 300 μ s, duty cycle \leq %.
2. Guaranteed by design, not subject to production testing.

Typical Characteristics



SOT-323 Package Information

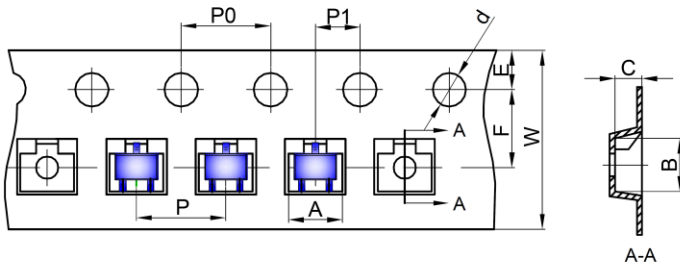


| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|----------|---------------------------|-------|----------------------|-------|
| | Min | Max | Min | Max |
| A | 0.900 | 1.100 | 0.035 | 0.043 |
| A1 | 0.000 | 0.100 | 0.000 | 0.004 |
| A2 | 0.900 | 1.000 | 0.035 | 0.039 |
| b | 0.200 | 0.400 | 0.008 | 0.016 |
| c | 0.080 | 0.150 | 0.003 | 0.006 |
| D | 2.000 | 2.200 | 0.079 | 0.087 |
| E | 1.150 | 1.350 | 0.045 | 0.053 |
| E1 | 2.150 | 2.450 | 0.085 | 0.096 |
| e | 0.650 TYP | | 0.026 TYP | |
| e1 | 1.200 | 1.400 | 0.047 | 0.055 |
| L | 0.525 REF | | 0.021 REF | |
| L1 | 0.260 | 0.460 | 0.010 | 0.018 |
| θ | 0° | 8° | 0° | 8° |

SOT-323 Tape and Reel

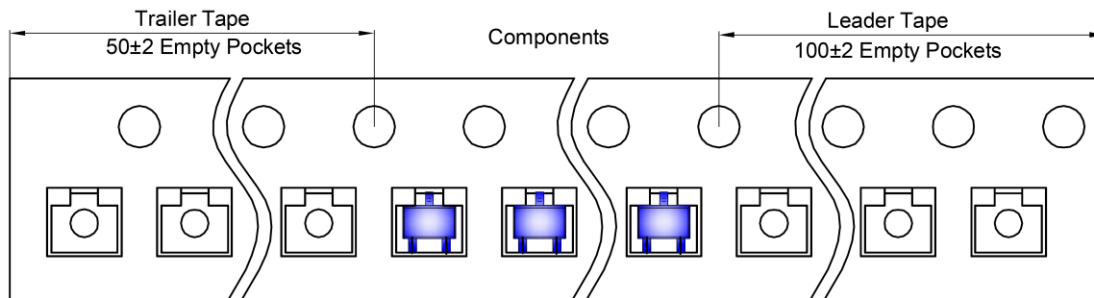
SOT-323 Tape and reel

SOT-323 Embossed Carrier Tape

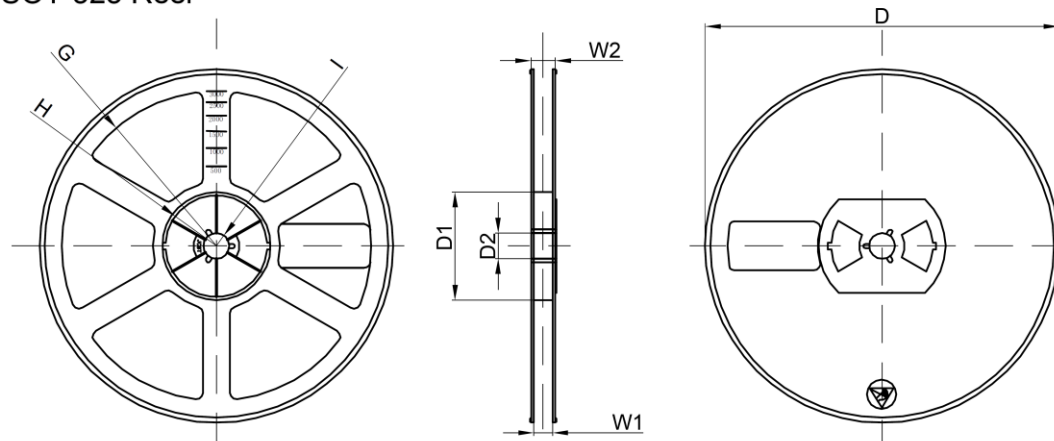


| Dimensions are in millimeter | | | | | | | | | | |
|------------------------------|------|------|------|-------|------|------|------|------|------|------|
| Pkg type | A | B | C | d | E | F | P0 | P | P1 | W |
| SOT-323 | 2.25 | 2.55 | 1.19 | Ø1.55 | 1.75 | 3.50 | 4.00 | 4.00 | 2.00 | 8.00 |

SOT-323 Tape Leader and Trailer



SOT-323 Reel



| Dimensions are in millimeter | | | | | | | | |
|------------------------------|---------|-------|-------|--------|--------|-------|------|-------|
| Reel Option | D | D1 | D2 | G | H | I | W1 | W2 |
| 7" Dia | Ø178.00 | 54.40 | 13.00 | R78.00 | R25.60 | R6.50 | 9.50 | 12.30 |

| REEL | Reel Size | Box | Box Size(mm) | Carton | Carton Size(mm) | G.W.(kg) |
|----------|-----------|------------|--------------|-------------|-----------------|----------|
| 3000 pcs | 7 inch | 30,000 pcs | 203×203×195 | 120,000 pcs | 438×438×220 | |

单击下面可查看定价，库存，交付和生命周期等信息

[>>GP\(格瑞宝\)](#)