

Product Summary

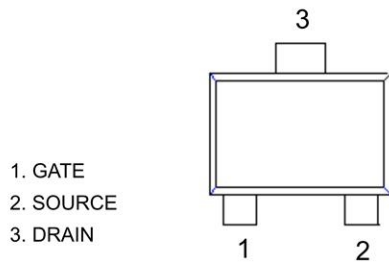
- V_{DS} 60V
- I_D 350mA
- $R_{DS(ON)}$ (at $V_{GS}=10V$) <5 ohm
- $R_{DS(ON)}$ (at $V_{GS}=4.5V$) <4.5 ohm
- ESD Protected:2000V

Application

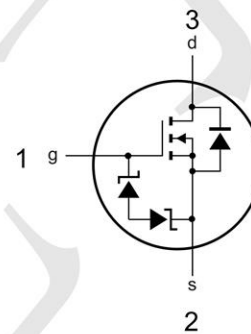
- Load/Power Switching
- Interfacing Switching
- Logic Level Shift

Package and Pin Configuration

SOT-723



Circuit diagram



Marking:RK*

Absolute Maximum Ratings ($T_A=25^{\circ}C$ unless otherwise noted)

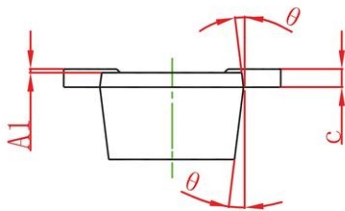
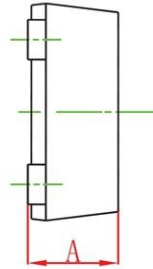
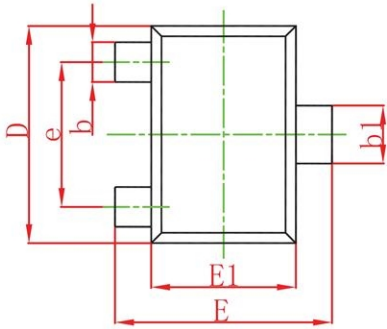
| Parameter | Symbol | Value | Unit |
|--------------------------|-----------|-----------|-------------|
| Drain-Source Voltage | V_{DS} | 60 | V |
| Gate-Source Voltage | V_{GS} | ± 20 | V |
| Continuous Drain Current | I_D | ± 350 | mA |
| Power Dissipation | P_D | 150 | mW |
| Junction Temperature | T_J | 150 | $^{\circ}C$ |
| Storage Temperature | T_{STG} | -55~ +150 | $^{\circ}C$ |

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

| Parameter | Symbol | Test Condition | Min | Typ | Max | Unit |
|--|---------------|--|-----|------|----------|----------|
| Drain -Source Breakdown Voltage | $V_{(BR)DSS}$ | $V_{GS} = 0V, I_D = 10\mu A$ | 60 | | | V |
| | | $V_{GS} = 0V, I_D = 3mA$ | 60 | | | |
| Gate Threshold Voltage | $V_{th(GS)}$ | $V_{DS} = V_{GS}, I_D = 250\mu A$ | 1.0 | 1.85 | 2.5 | V |
| Gate-Source Leakage Current | I_{GSS} | $V_{DS} = 0V, V_{GS} = \pm 20V$ | | | ± 10 | μA |
| Zero gate voltage drain current | I_{DSS} | $V_{DS} = 60V, V_{GS} = 0V$ | | | 1 | μA |
| Static Drain- Source On State Resistance | $R_{DS(on)}$ | $V_{GS} = 10V, I_D = 500mA$ | | | 5 | Ω |
| | | $V_{GS} = 4.5V, I_D = 200mA$ | | 1.5 | 4.3 | |
| Input Capacitance | C_{rss} | $V_{GS} = 10V$ | | | 42 | pF |
| Input Capacitance | C_{rss} | $V_{GS} = 0V$ | | | 30 | |
| Input Capacitance | C_{rss} | $V_{GS} = 1MHz$ | | | 10 | |
| Turn-on delay time | $t_d(on)$ | $V_{DD} = 25V, V_{GS} = 10V, R_L = 250\Omega,$ $R_{GS} = 50K, R_{GEN} = 25\Omega$ | | | 10 | ns |
| Turn-on delay time | $t_d(on)$ | | | | 15 | |



SOT-723 Package Outline Dimensions



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|-------|----------------------|-------|
| | Min. | Max. | Min. | Max. |
| A | 0.430 | 0.500 | 0.017 | 0.020 |
| A1 | 0.000 | 0.050 | 0.000 | 0.002 |
| b | 0.170 | 0.270 | 0.007 | 0.011 |
| b1 | 0.270 | 0.370 | 0.011 | 0.015 |
| c | 0.080 | 0.150 | 0.003 | 0.006 |
| D | 1.150 | 1.250 | 0.045 | 0.049 |
| E | 1.150 | 1.250 | 0.045 | 0.049 |
| E1 | 0.750 | 0.850 | 0.030 | 0.033 |
| e | 0.800TYP. | | 0.031TYP. | |
| θ | 7° REF. | | 7° REF. | |