



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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2N7002DW

N-Channel MOSFET

Features

- Halogen free available upon request by adding suffix "-HF"
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Power Dissipation: 0.2W(Tamb=25°C)
- Drain Current: 115mA
- Drain-source Voltage: 60V
- Operating Junction Temperature: -55 to +150°C
- Storage Temperature: -55 to +150°C
- Marking: K72

Electrical Characteristics @ 25°C Unless Otherwise Specified

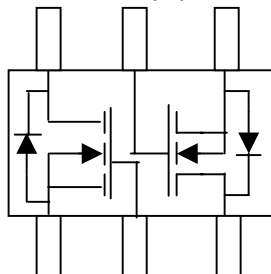
| Symbol | Parameter | Min | Typ | Max | Units |
|---------------|---|-----|------------|-------------|-----------|
| $V_{(BR)DSS}$ | Drain-Source Breakdown Voltage* ($V_{GS}=0Vdc, I_D=10\mu Adc$) | 60 | 70 | --- | Vdc |
| $V_{th(GS)}$ | Gate-Threshold Voltage* ($V_{DS}=V_{GS}, I_D=250\mu Adc$) | 1.0 | 1.5 | 2.0 | Vdc |
| I_{GSS} | Gate-body Leakage* ($V_{DS}=0Vdc, V_{GS}=\pm 20Vdc$) | --- | --- | ± 10 | nAdc |
| I_{DSS} | Zero Gate Voltage Drain Current* ($V_{DS}=60Vdc, V_{GS}=0Vdc$) ($V_{DS}=60Vdc, V_{GS}=0Vdc, T_j=125^\circ C$) | --- | --- | 1 500 | μAdc |
| $I_{D(ON)}$ | On-state Drain Current* ($V_{DS}=7.5Vdc, V_{GS}=10Vdc$) | 0.5 | 1.0 | --- | Adc |
| $r_{DS(on)}$ | Drain-Source On-Resistance* ($V_{GS}=5Vdc, I_D=50mAdc$) ($V_{GS}=10Vdc, I_D=500mAdc$) | --- | 3.2 4.4 | 7.5 13.5 | Ω |
| g_{FS} | Forward Transconductance* ($V_{DS}=10Vdc, I_D=200mAdc$) | 80 | --- | --- | ms |
| C_{iss} | Input Capacitance | --- | 22 | 50 | pF |
| C_{OSS} | Output Capacitance | --- | 11 | 25 | |
| C_{rSS} | Reverse Transfer Capacitance | --- | 2 | 5 | |

$V_{DS}=25Vdc, V_{GS}=0Vdc, f=1MHz$

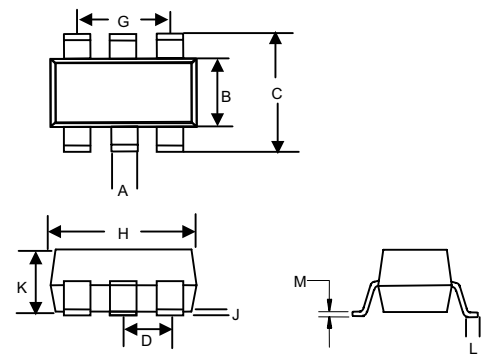
Switching

| | | | | | | |
|--------------|---------------|---|-----|----|----|----|
| $t_{d(on)}$ | Turn-on Time | $V_{DD}=30Vdc, V_{GEN}=10Vdc, R_L=150\Omega, I_D=200mA, R_G=25\Omega$ | --- | 7 | 20 | ns |
| $t_{d(off)}$ | Turn-off Time | | --- | 11 | 20 | |

* Pulse test, pulse width $\leq 300 \mu s$, duty cycle $\leq 20\%$



SOT-363



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|------|-------------|------|------|
| | INCHES | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | .006 | .014 | 0.15 | 0.35 | |
| B | .045 | .053 | 1.15 | 1.35 | |
| C | .085 | .096 | 2.15 | 2.45 | |
| D | .026 | | 0.65Nominal | | |
| G | .047 | .055 | 1.20 | 1.40 | |
| H | .071 | .087 | 1.80 | 2.20 | |
| J | --- | .004 | --- | 0.10 | |
| K | .035 | .043 | 0.90 | 1.10 | |
| L | .010 | .018 | 0.26 | 0.46 | |
| M | .003 | .006 | 0.08 | 0.15 | |



Micro Commercial Components

Ordering Information :

| Device | Packing |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 3Kpcs/Reel |

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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