



**Micro Commercial Components**

Micro Commercial Components  
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# 2N7002DW

## N-Channel MOSFET

### Features

- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 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

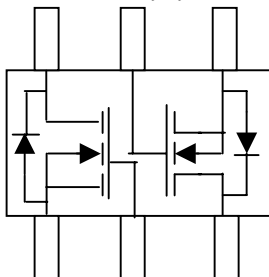
### Electrical Characteristics @ 25°C Unless Otherwise Specified

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

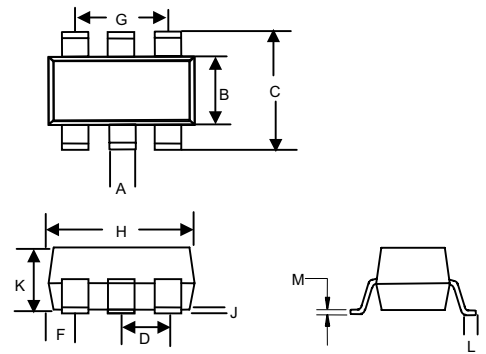
### Switching

$t_{d(on)}$	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		
A	.004	.012	0.10	0.30	
B	.045	.053	1.15	1.35	
C	.079	.087	2.00	2.20	
D	.026		0.65Nominal		
F	.012	.016	0.30	0.40	
H	.071	.087	1.80	2.20	
J	---	.004	---	0.10	
K	.035	.039	0.90	1.00	
L	.010	.016	0.25	0.40	
M	.004	.016	0.10	0.25	



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## Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel;3Kpcs/Reel

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