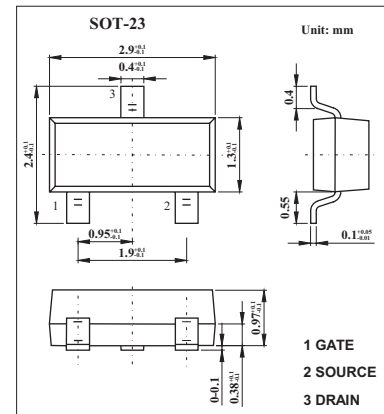


## N-Channel Enhanceent Mode Field Effect Transistor 2N7002K

### ■ Features

- Low On-Resistance:  $R_{DS(ON)}$
- Low Gate Threshold Voltage
- Low Input Capacitance
- Fast Switching Speed
- Low Input/Output Leakage



### ■ Absolute Maximum Ratings $T_a=25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DS}$	60	V
Gate-Source Voltage	$V_{GS}$	$\pm 20$	V
Drain Current -Continuous	$I_D$	300	mA
Drain Current -Pulsed		800	mA
Power Dissipation	$P_D$	350	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	357	$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_j, T_{STG}$	-65 to +150	$^\circ\text{C}$

### ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	$V_{DS}$	$V_{GS} = 0V, I_D = 10 \mu A$	60			V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS} = 60V, V_{GS} = 0V$			1.0	$\mu A$
Gate-Body Leakage	$I_{GSS}$	$V_{GS} = \pm 20V, V_{DS} = 0V$			$\pm 10$	$\mu A$
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = 10V, I_D = 1mA$	1.0	1.6	2.5	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	$V_{GS} = 10V, I_D = 0.5A$			2.0	$\Omega$
		$V_{GS} = 5V, I_D = 0.05A$			3.0	
Forward Transfer Admittance	$ Y_{fs} $	$V_{GS} = 10V, V_{DS} = 0.2V$	80			ms
Input Capacitance	$C_{iss}$	$V_{DS} = 25V, V_{GS} = 0V, f = 1.0MHz$			50	pF
Output Capacitance	$C_{oss}$				25	pF
Reverse Transfer Capacitance	$C_{rss}$				5.0	pF

### ■ Marking

Marking	K7K
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