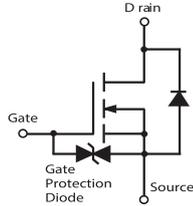


# N Channel MOSFET

**multicomp** PRO

**RoHS  
Compliant**



## Features

- $V_{DS}$  (V) = -60V
- $I_D = 115\text{mA}$
- $R_{DS(ON)} < 5\Omega$  ( $V_{GS} = 10\text{V}$ )
- $R_{DS(ON)} < 7\Omega$  ( $V_{GS} = 5\text{V}$ )

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

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DS}$	60	V
Gate-Source Voltage	$V_{GS}$	$\pm 20$	
Continuous Drain Current	$I_D$	115	mA
Power Dissipation	$P_D$	150	mW
Thermal Resistance, Junction- to-Ambient	$R_{thJA}$	833	$^\circ\text{C}/\text{W}$
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{sig}$	-55 to 150	

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

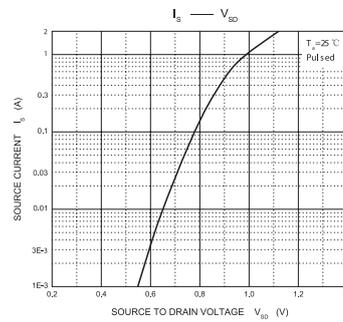
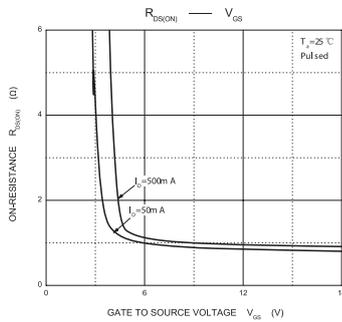
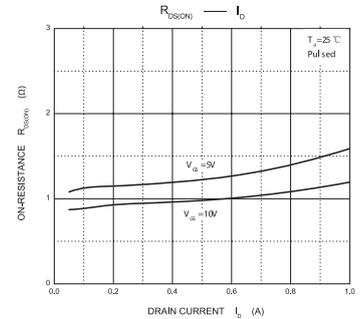
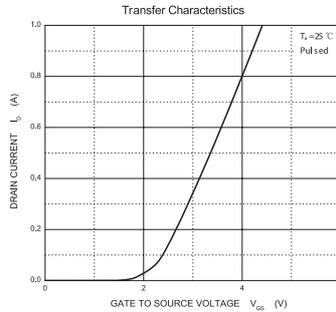
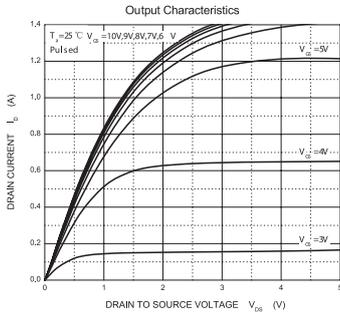
Characteristic	Symbol	Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	$V_{DSS}$	$I_D=250\mu\text{A}$ , $V_{GS}=0\text{V}$	60			V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=60\text{V}$ , $V_{GS}=0\text{V}$			80	nA
Gate-Body Leakage Current	$I_{GSS}$	$V_{DS}=0\text{V}$ , $V_{GS}=\pm 20\text{V}$			$\pm 80$	
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ , $I_D=250\mu\text{A}$	1		2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10\text{V}$ , $I_D=500\text{mA}$			5	$\Omega$
		$V_{GS}=5\text{V}$ , $I_D=50\text{mA}$			7	
On State Drain Current	$I_{D(on)}$	$V_{GS}=10\text{V}$ , $V_{DS}=7\text{V}$	500			mA
Forward Transconductance	$g_{FS}$	$V_{DS}=10\text{V}$ , $I_D=0.2\text{A}$	80			ms
Input Capacitance	$C_{iss}$	$V_{GS}=0\text{V}$ , $V_{DS}=25\text{V}$ , $f=1\text{MHz}$			50	pF
Output Capacitance	$C_{oss}$				25	
Reverse Transfer Capacitance	$C_{RSS}$				5	
Turn-On DelayTime	$t_{d(on)}$	$I_{DD}=25\text{V}$ , $I_D=0.5\text{A}$ , $V_{GEN}=10\text{V}$ , $R_L=50\Omega$ , $R_{GEN}=25\Omega$			20	ns
Turn-Off DelayTime	$t_{d(off)}$				40	
Drain-source on-voltage	$V_{DS(on)}$	$V_{GS}=10\text{V}$ , $I_D=500\text{mA}$			3.75	V
		$V_{GS}=5\text{V}$ , $I_D=50\text{mA}$			0.375	
Diode Forward Voltage	$V_{SD}$	$I_S=115\text{mA}$ , $V_{GS}=0\text{V}$	0.55		1.2	

**Note:** 2. Short duration test pulse used to minimize self-heating effect.

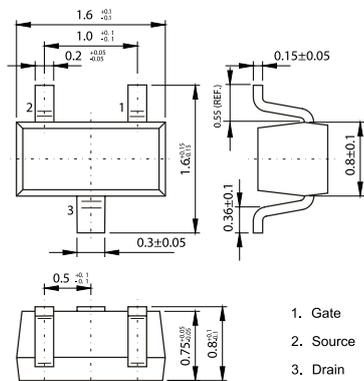
Newark.com/multicomp-pro  
Farnell.com/multicomp-pro  
sg.element14.com/b/multicomp-pro

**multicomp** PRO

## Typical Characteristics



## Diagram



Dimensions : Millimetres

## Part Number Table

Description	Part Number
MOSFET, N Channel, 0.115A, 60V, SOT523	2N7002T

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