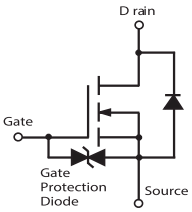
N Channel MOSFET

multicomp PRO

RoHS Compliant



Features

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

Absolute Maximum Ratings (Ta=25°C)

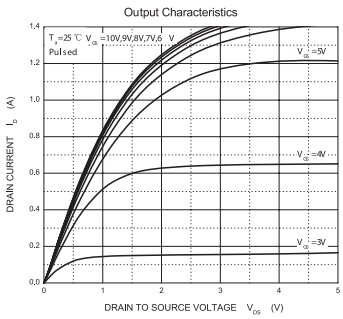
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	60	V
Gate-Source Voltage	V_{GS}	±20	
Continuous Drain Current	I_D	115	mA
Power Dissipation	P_D	150	mW
Thermal Resistance. Junction- to-Ambient	R_{thJA}	833	°C/W
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{stg}	-55 to 150	

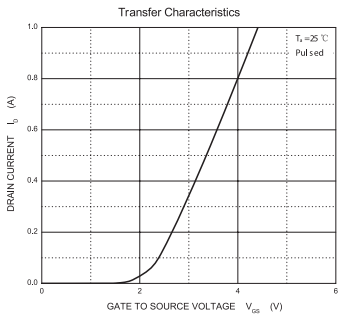
Electrical Characteristics Ta = 25°C

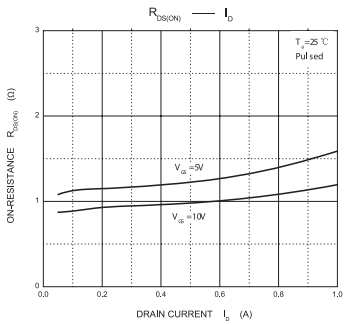
Characteristic	Symbol	Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{DSS}	I_D=250μA, V_{GS}=0V	60			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=60V, V_{GS}=0V			80	nA
Gate-Body Leakage Current	I_{GSS}	V_{DS}=0V, V_{GS}=±20V			±80	
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS}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

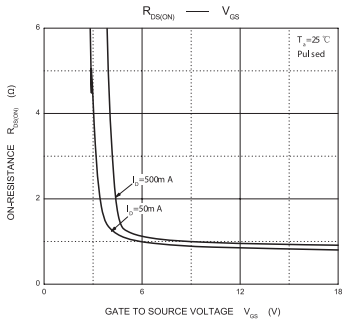
Note: 2. Short duration test pulse used to minimize self-heating effect.

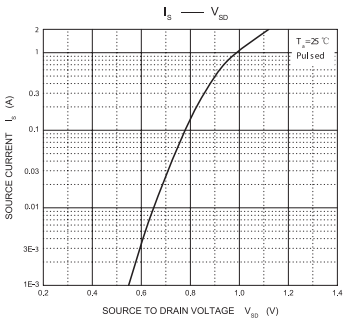
Typical Characterisitics



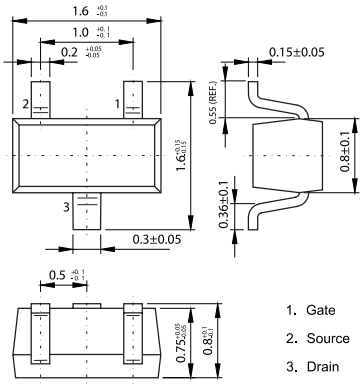








Diagram



Dimensions : Millimetres

Part Number Table

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