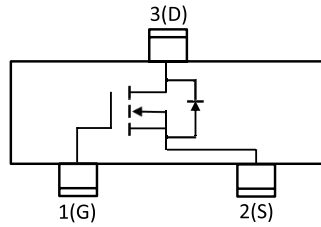


N Channel Small Signal MOSFET multicomp^{PRO}



Device Schematic & PIN Configuration



Pin Assignment		
1	G	Gate
2	S	Source
3	D	Drain

**RoHS
Compliant**

Features

- Voltage Controlled Small Signal Switch
- High Saturation Current Capability
- High Density Cell Design for Low On-Resistance
- Load Switch for Portable Devices

Maximum Ratings @TA = +25°C

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	60	V
Gate-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current	I_D	115	mA
Power Dissipation	P_D	225	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{STG}	-50 to +150	°C
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	556	°C/W

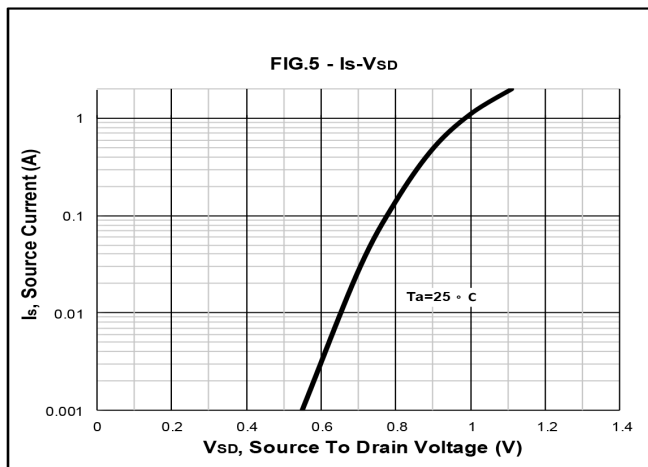
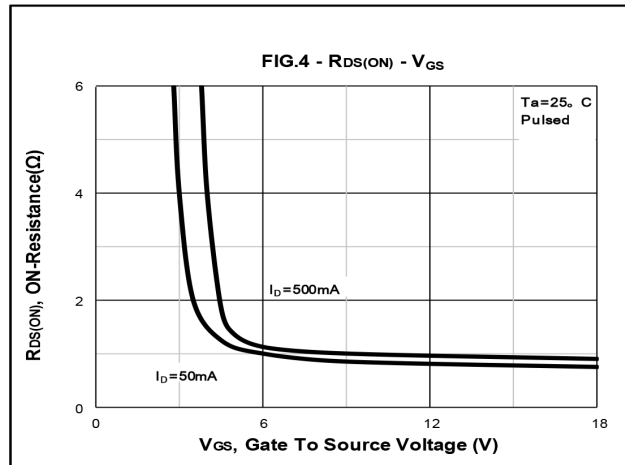
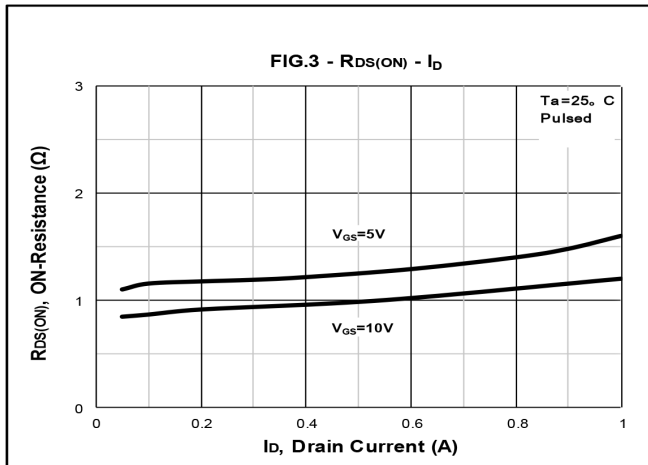
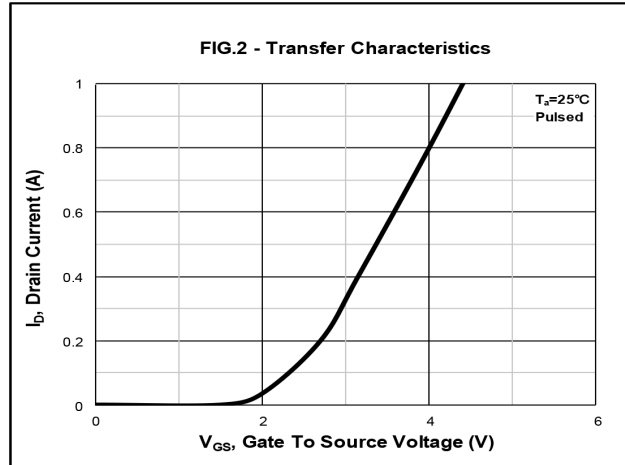
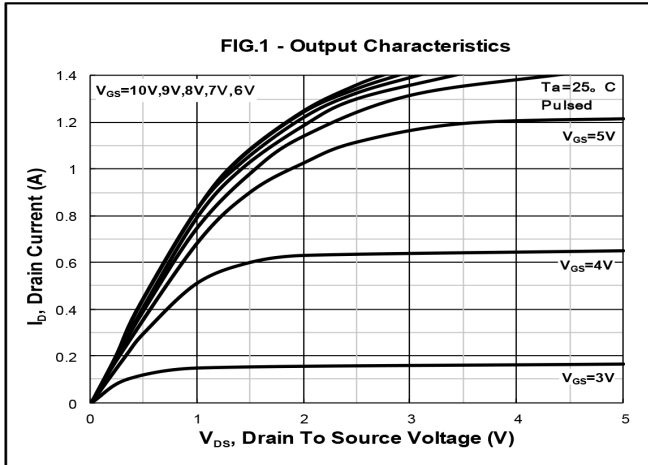
Electrical Characteristics @TA = +25°C

Parameter	Test Conditions	Symbol	Min.	Typ.	Max.	Unit
Drain-Source Breakdown Voltage	$V_{GS}=0V, I_D=250\mu A$	V_{DSS}	60		--	V
Gate-Threshold Voltage	$V_{DS}=V_{GS}, I_D=250\mu A$	$V_{th(GS)}$	1		2.5	
Gate-Body Leakage	$V_{DS}=0V, V_{GS}=\pm 20V$	I_{GSS}	-		± 100	nA
Zero Gate Voltage Drain Current	$V_{DS}=60V, V_{GS}=0V$	I_{DSS}	-		80	
On-State Drain Current	$V_{GS}=10V, V_{DS}=7V$	$I_{D(ON)}$	500		--	mA
Drain-Source On-Resistance	$V_{GS}=10V, I_D=500mA$	$R_{DS(ON)}$	-		5	Ω
	$V_{GS}=5V, I_D=50mA$		-		7	
Forward Trans Conductance	$V_{DS}=10V, I_D=200mA$	g_{fs}	80		--	ms
Drain-Source On-Voltage	$V_{GS}=10V, I_D=500mA$	$V_{DS(ON)}$	-		3.5	V
	$V_{GS}=5V, I_D=50mA$		-		0.375	
Diode Forward Voltage	$I_S=115mA, V_{GS}=0V$	V_{SD}	0.55		1.2	
Input Capacitance (*)	$V_{DS}=25V, V_{GS}=0V, F=1MHz$	C_{iss}			50	pF
Output Capacitance (*)		C_{oss}			25	
Reverse Transfer Capacitance (*)		C_{rss}			5	
Turn-on Time (*)	$V_{DD}=25V, R_L=50\Omega, I_D=500mA, V_{GEN}=10V, R_G=25\Omega$	$t_{d(ON)}$			20	ns
Turn-off Time (*)		$t_{d(OFF)}$			40	

Notes: These parameters have on way to verify.

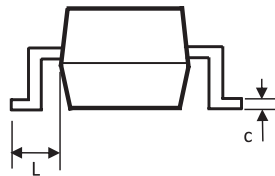
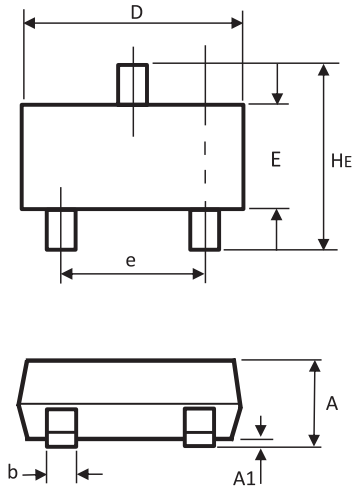
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Rating and Characteristic Curves



Dimensions : Millimetres

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SOT23 Package		
Dim	Min	Max
A	0.9	1.15
A1	0	0.1
b	0.3	0.5
c	0.08	0.15
D	2.8	3
E	1.2	1.4
e	1.8	2
L	0.55 REF	
HE	2.25	2.55

Part Number Table

Description	Part Number
N Channel MOSFET, 60V, 115mA, SOT23	2N7002

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