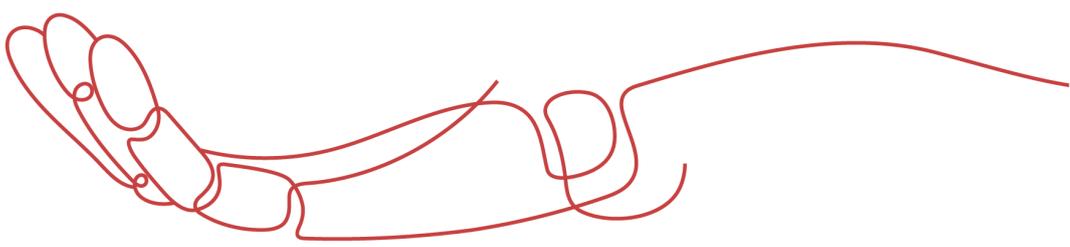


PRODUCT DATA SHEET



To learn more about JGSEMI, please visit our website at



Datasheet



Resources

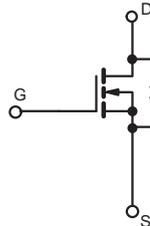


Samples

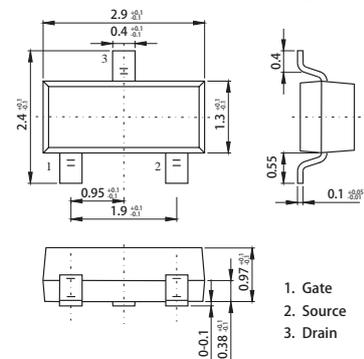
Please note: Please check the JINGAO Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at www.jg-semi.cn. Please email any questions regarding the system integration to JINGAO_questions@jgsemi.com.

■ Features

- $V_{DS} = 60V$
- $I_D = 300\text{ mA}$ ($V_{GS} = 10V$)
- $R_{DS(ON)} < 2.5\ \Omega$ ($V_{GS} = 10V$)
- $R_{DS(ON)} < 3.5\ \Omega$ ($V_{GS} = 4.5V$)
- Low On-Resistance



SOT-23

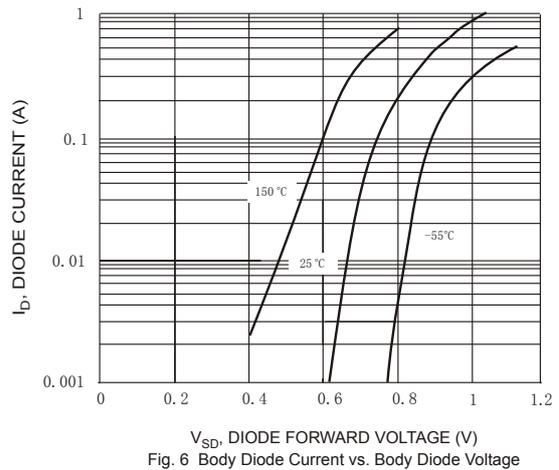
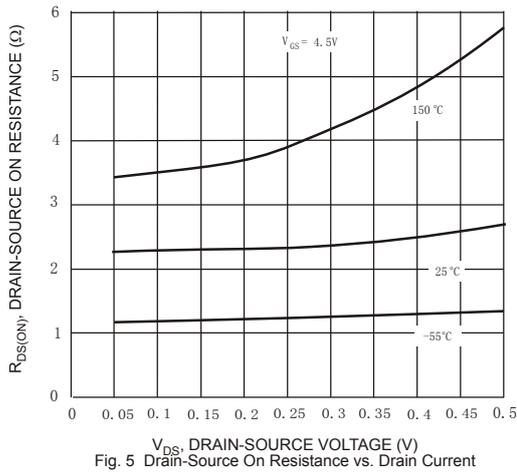
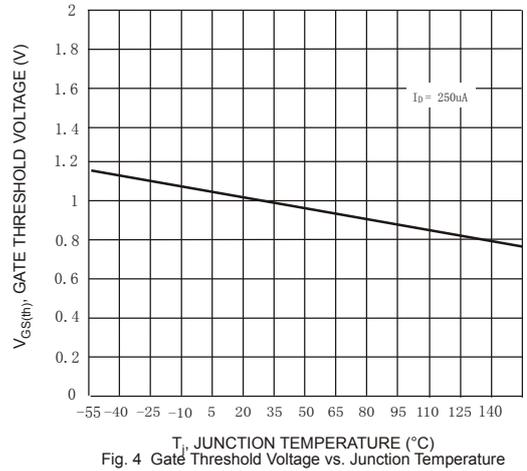
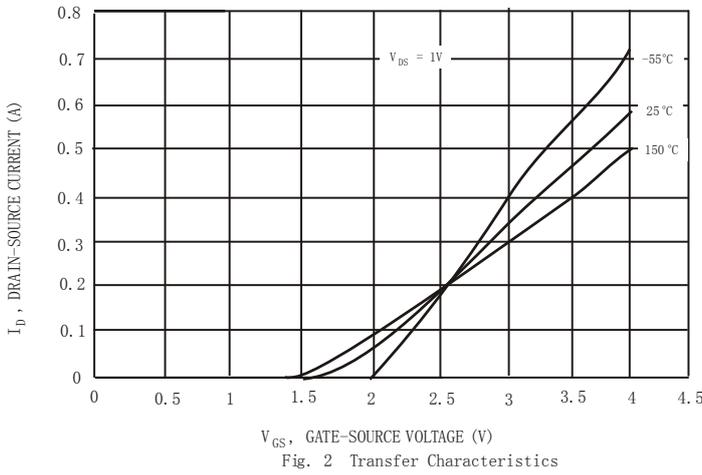
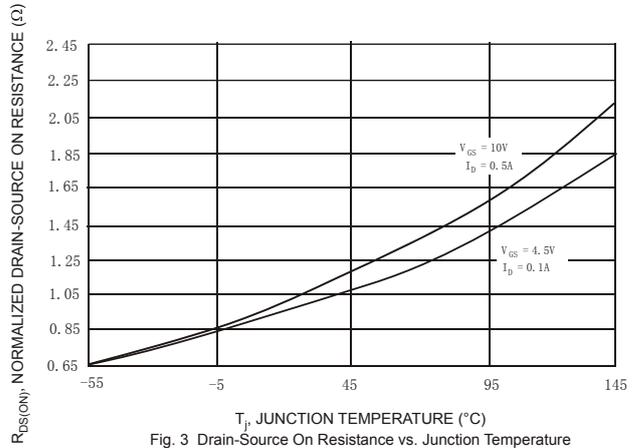
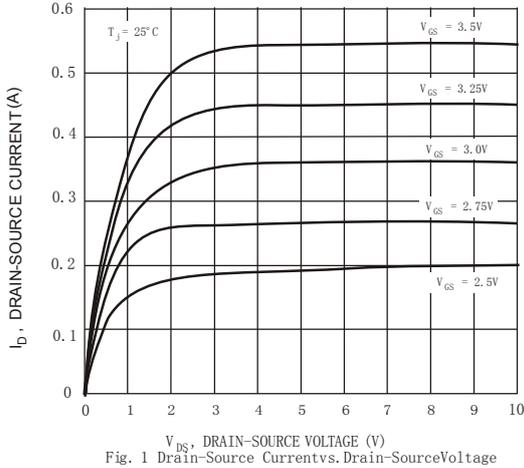

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	60	V
Drain-Gate Voltage $R_{GS} \leq 20K\ \Omega$	V_{DG}	60	
Gate-Source Voltage	V_{GS}	± 20	
Continuous Drain Current	I_D	300	mA
Power Dissipation	P_D	300	mW
Thermal Resistance Junction- to-Ambient	R_{thJA}	417	$^\circ\text{C}/\text{W}$
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to 150	

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{DSS}	$I_D = 250\ \mu\text{A}, V_{GS} = 0V$	50			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = 60V, V_{GS} = 0V$			0.5	μA
Gate-Body Leakage Current	I_{GSS}	$V_{DS} = 0V, V_{GS} = \pm 20V$			± 5	μA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = 250\ \mu\text{A}$	0.5		1.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS} = 10V, I_D = 220\text{mA}$			2.5	Ω
		$V_{GS} = 4.5V, I_D = 220\text{mA}$			3.5	
Forward Transconductance	g_{FS}	$V_{DS} = 25V, I_D = 0.3A, f = 1\text{kHz}$	100			mS
Input Capacitance	C_{iss}	$V_{GS} = 0V, V_{DS} = 10V, f = 1\text{MHz}$			50	pF
Output Capacitance	C_{oss}				25	
Reverse Transfer Capacitance	C_{rss}				8	
Turn-On Delay Time	$t_{d(on)}$	$V_{DS} = 30V, I_D = 0.3A, R_G = 50\ \Omega$			20	ns
Turn-Off Delay Time	$t_{d(off)}$				20	
Maximum Body-Diode Continuous Current	I_S				0.22	A
Diode Forward Voltage	V_{SD}	$I_S = 0.44A, V_{GS} = 0V$		0.80	1.4	V

■ Typical Characteristics



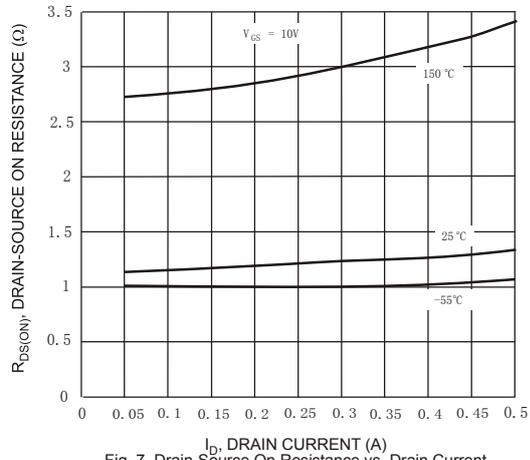
■ Typical Characteristics


Fig. 7 Drain-Source On Resistance vs. Drain Current

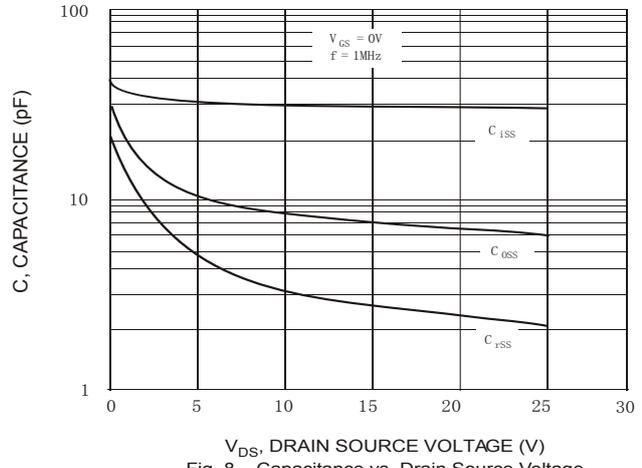


Fig. 8 Capacitance vs. Drain Source Voltage

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