



PRODUCT DATA SHEET

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Datasheet



Resources

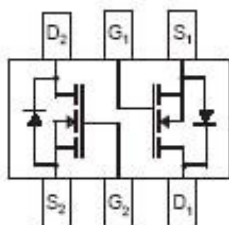


Samples

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.

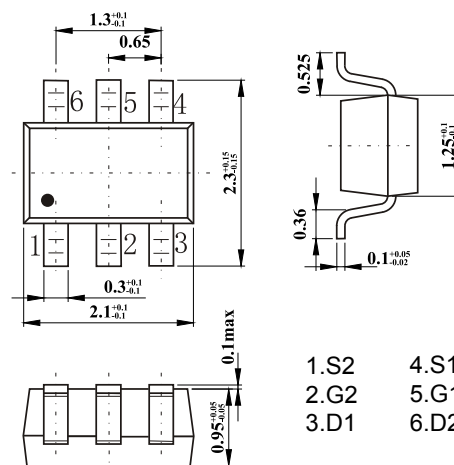
■ Features

- $V_{DS} (V) = 60V$
- $I_D = 115 \text{ mA}$ ($V_{GS} = 10V$)
- $R_{DS(ON)} < 7.5 \Omega$ ($V_{GS} = 5V$)
- Low Input Capacitance
- Fast Switching Speed
- Low On-Resistance



SOT-363

Unit: mm

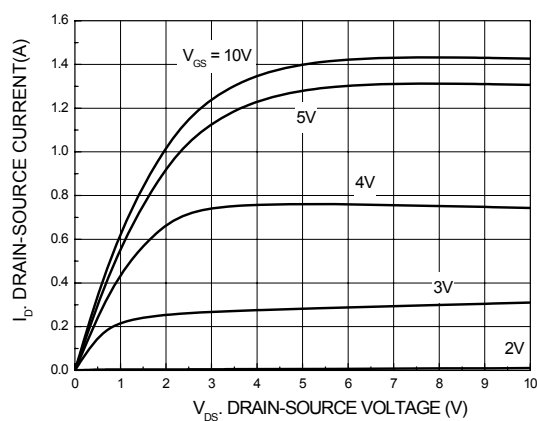
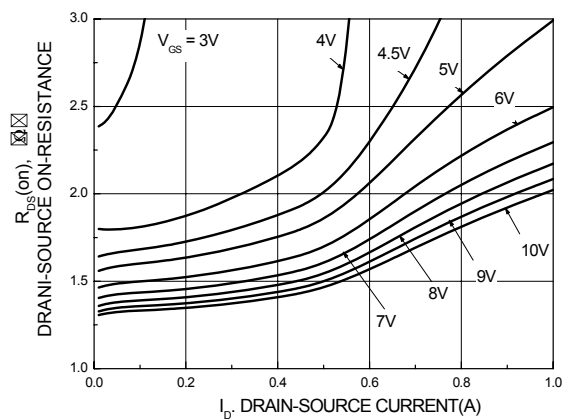


■ Absolute Maximum Ratings Ta = 25°C

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V _{DS}	60	V
Drain-Gate Voltage @ R _{GS} ≤ 1MΩ		V _{DG}	60	
Gate-Source Voltage	Continuous	V _{GS}	±20	
	Pulsed		±40	
Continuous Drain Current	Continuous	I _D	115	mA
	Continuous @ 100°C		73	
	Pulsed		800	
Power Dissipation		P _D	200	mW
Derating above Ta = 25°C			1.6	mW/°C
Thermal Resistance.Junction- to-Ambient		R _{thJA}	625	°C/W
Junction Temperature		T _J	150	°C
Storage Temperature Range		T _{stg}	-55 to 150	

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{DS}	$I_D=250\mu A$, $V_{GS}=0V$	60	78		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=60V$, $V_{GS}=0V$			1	uA
		$V_{DS}=60V$, $V_{GS}=0V$, $T_J=125^\circ C$			500	
Gate-Body Leakage Current	I_{GSS}	$V_{DS}=0V$, $V_{GS}=\pm 20V$			± 10	
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$, $I_D=250\mu A$	1	1.76	2	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=5V$, $I_D=50mA$		1.6	7.5	Ω
		$V_{GS}=10V$, $I_D=500mA$, $T_J=125^\circ C$		2.53	13.5	
On State Drain Current	$I_{D(on)}$	$V_{GS}=10V$, $V_{DS}=7.5V$	0.5	1.43		A
Forward Transconductance	g_{FS}	$V_{DS}=10V$, $I_D=0.2A$	80	356.5		mS
Input Capacitance	C_{iss}	$V_{GS}=0V$, $V_{DS}=25V$, $f=1MHz$		37.8	50	pF
Output Capacitance	C_{oss}			12.4	25	
Reverse Transfer Capacitance	C_{rss}			6.5	7	
Turn-On DelayTime	$t_{d(on)}$	$V_{GS}=10V$, $V_{DS}=30V$, $R_L=150\Omega$, $R_G=25\Omega$, $I_D=0.2A$		5.85	20	ns
Turn-Off DelayTime	$t_{d(off)}$			12.5	20	

■ Typical Characteristics
Figure 1. On-Region Characteristics

Figure 2. On-Resistance Variation with Gate Voltage and Drain Current


■ Typical Characteristics

Figure 3. On-Resistance Variation with Temperature

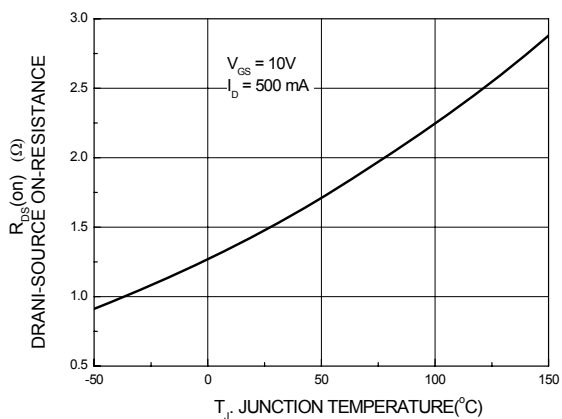


Figure 4. On-Resistance Variation with Gate-Source Voltage

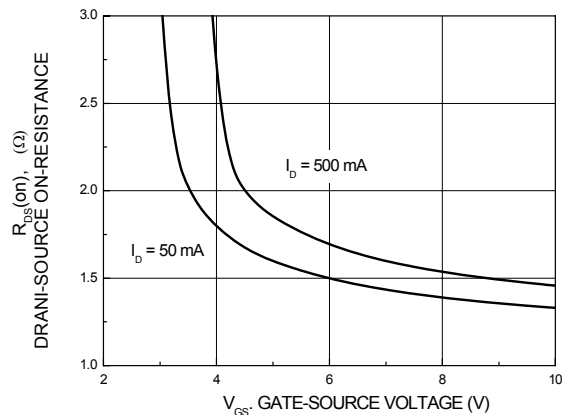


Figure 5. Transfer Characteristics

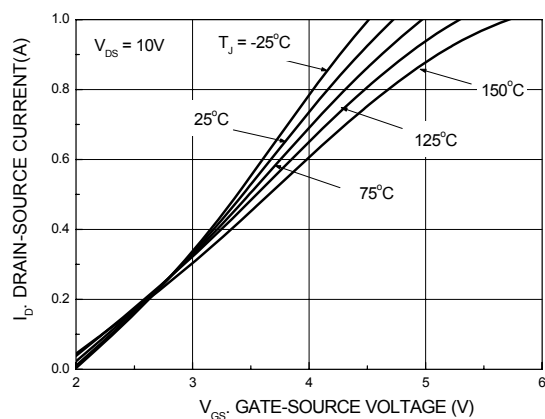


Figure 6. Gate Threshold Variation with Temperature

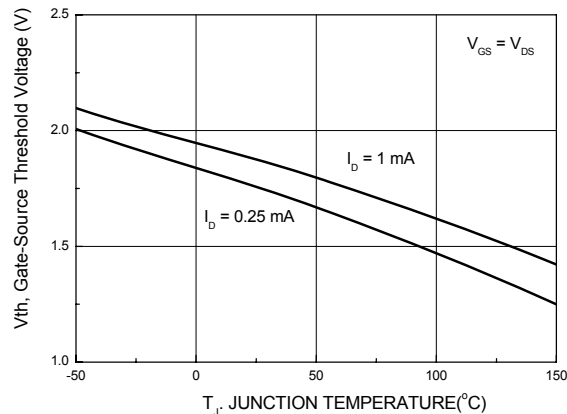


Figure 7. Reverse Drain Current Variation with Diode Forward Voltage and Temperature

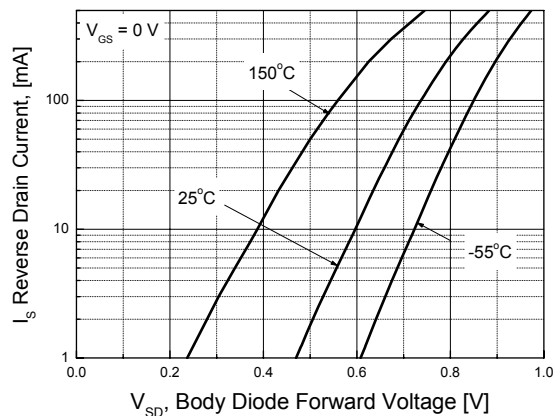
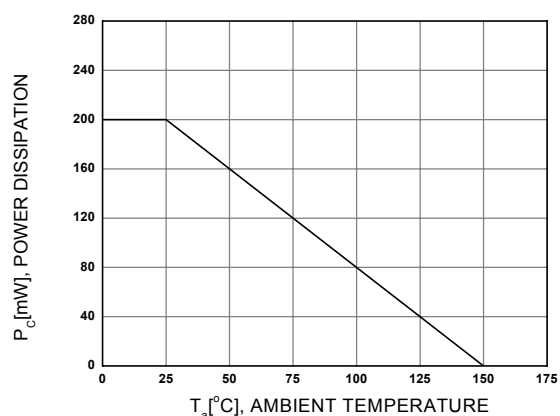


Figure 8. Power Derating



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