



PRODUCT DATA SHEET



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Datasheet



Resources

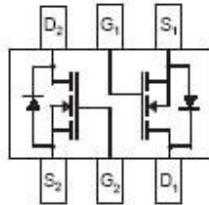


Samples

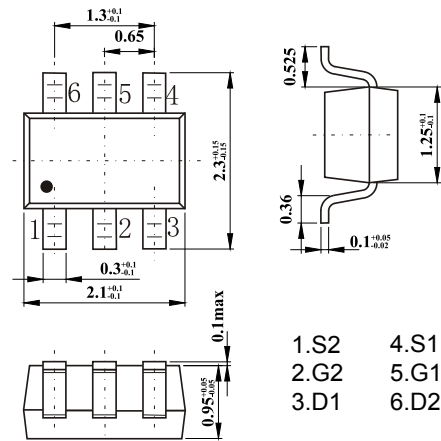
Please note: Please check the JINGAO Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at www.jg-semi.cn. Please email any questions regarding the system integration to JINGAO_questions@jgsemi.com.

■ 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

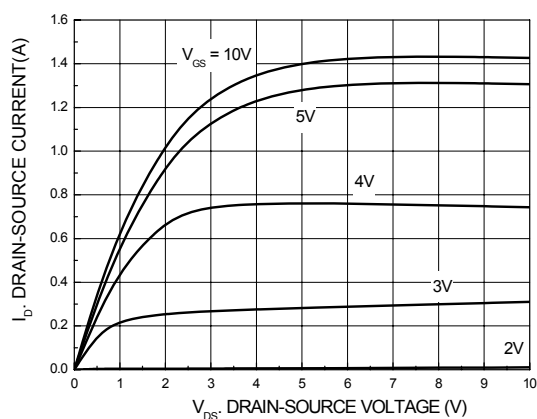
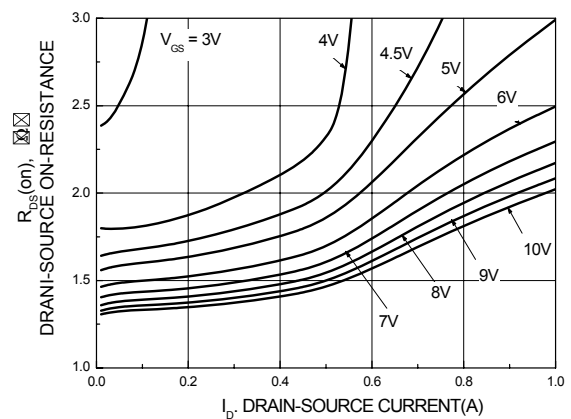


■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	60	V
Drain-Gate Voltage @ $R_{GS} \leq 1M\Omega$	V_{DG}	60	
Gate-Source Voltage	Continuous	± 20	
	Pulsed	± 40	
Continuous Drain Current	Continuous	115	mA
	Continuous @ 100°C	73	
	Pulsed	800	
Power Dissipation	P_D	200	mW
Derating above $T_a = 25^\circ\text{C}$		1.6	$\text{mW}/^\circ\text{C}$
Thermal Resistance.Junction- to-Ambient	R_{thJA}	625	$^\circ\text{C}/\text{W}$
Junction Temperature	T_J	150	$^\circ\text{C}$
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 _{DSS}	I _D =250 μA, V _{GS} =0V	60	78		V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =60V, V _{GS} =0V			1	μA
		V _{DS} =60V, V _{GS} =0V, T _J =125°C			500	
Gate-Body Leakage Current	I _{GSS}	V _{DS} =0V, V _{GS} =±20V			±10	
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} , I _D =250 μA	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°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 Ω, R _G =25 Ω, 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

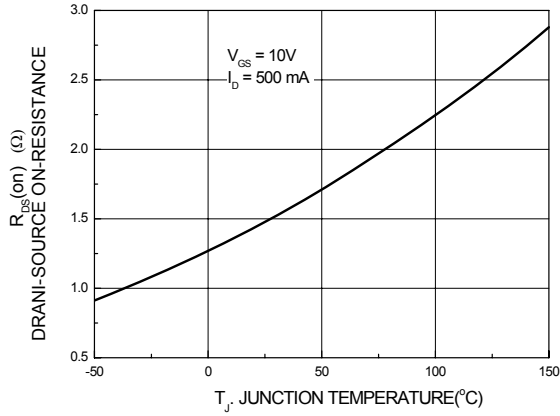


Figure 4. On-Resistance Variation with Gate-Source Voltage

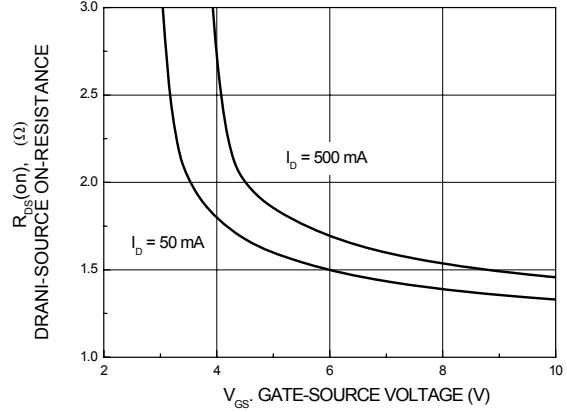


Figure 5. Transfer Characteristics

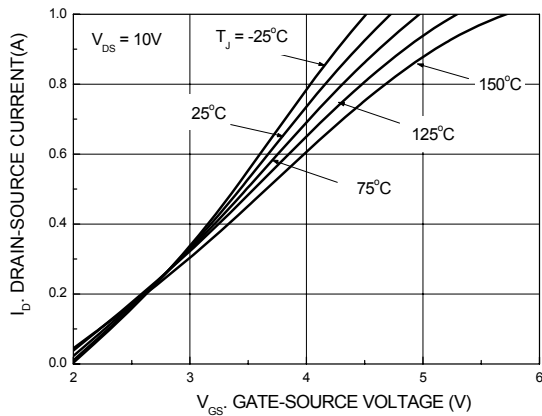


Figure 6. Gate Threshold Variation with Temperature

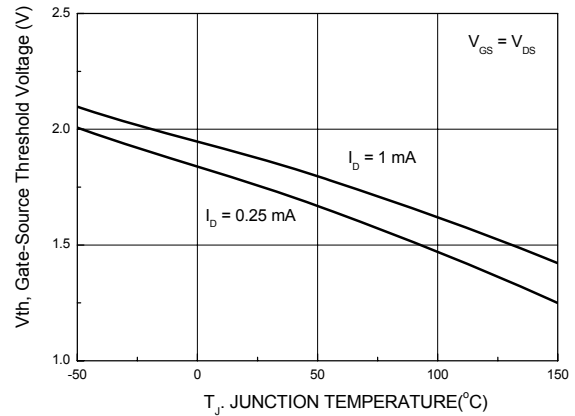


Figure 7. Reverse Drain Current Variation with Diode Forward Voltage and Temperature

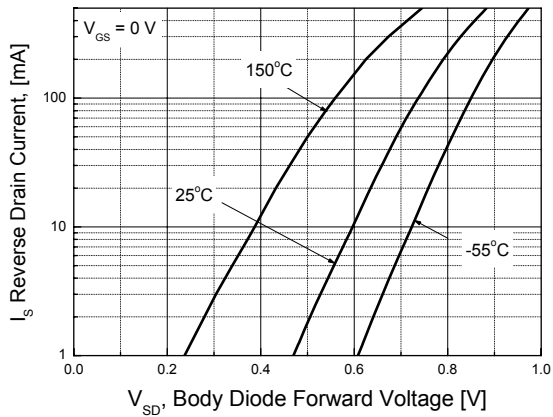
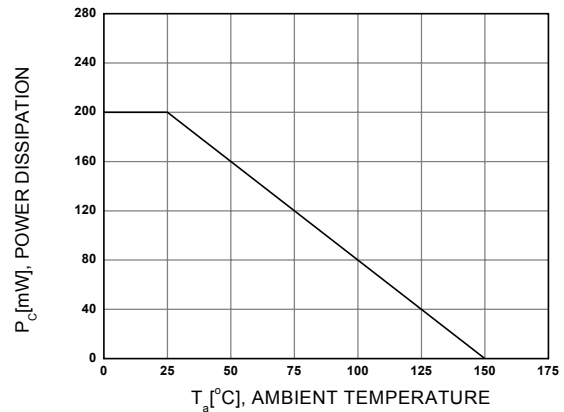


Figure 8. Power Derating



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