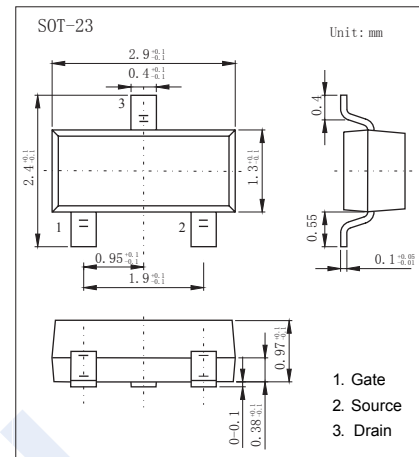
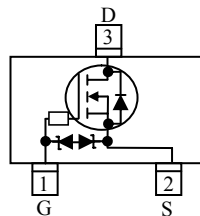


N-Channel MOSFET

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■ Features

- $V_{DS} (V) = 20V$
- $I_D = 0.83 A$
- $R_{DS(ON)} < 310m\Omega$ ($V_{GS} = 4.5V$)
- $R_{DS(ON)} < 360m\Omega$ ($V_{GS} = 2.5V$)
- $R_{DS(ON)} < 460m\Omega$ ($V_{GS} = 1.8V$)



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

Parameter		Symbol	10 S	Steady State	Unit
Drain-Source Voltage		V _{DS}	20		V
Gate-Source Voltage		V _{GS}	± 6		
Continuous Drain Current (Note.1)	Ta=25℃	I _D	0.9	0.83	A
	Ta=70℃		0.72	0.66	
Power Dissipation (Note.1)	Ta=25℃	P _D	0.38	0.32	W
	Ta=70℃		0.24	0.2	
Continuous Drain Current (Note.2)	Ta=25℃	I _D	0.79	0.71	A
	Ta=70℃		0.63	0.57	
Power Dissipation (Note.2)	Ta=25℃	P _D	0.29	0.24	W
	Ta=70℃		0.19	0.15	
Pulsed Drain Current (Note.3)		I _{DM}	1.4		A
Thermal Resistance.Junction- to-Ambient (Note.1) (Note.2)		R _{thJA}	325	385	℃/W
			420	520	
Thermal Resistance.Junction- to-Case		R _{thJC}	-	300	
Junction Temperature		T _J	150		℃
Storage Temperature Range		T _{stg}	-55 to 150		

Note.1:Surface mounted on FR4 Board using 1 square inch pad size, 1oz copper

Note.2:Surface mounted on FR4 board using minimum pad size, 1oz copper

Note.3:Repetitive rating, pulse width limited by junction temperature, $t_p=10\mu s$, Duty Cycle=1%

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■ 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	20			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =16V, V _{GS} =0V			1	μA
Gate-Body Leakage Current	I _{GSS}	V _{DS} =0V, V _{GS} =±5V			±5	μA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} , I _D =250 μA	0.45		0.85	V
Static Drain-Source On-Resistance	R _{DS(on)}	V _{GS} =4.5V, I _D =0.55A			310	mΩ
		V _{GS} =2.5V, I _D =0.45A			360	
		V _{GS} =1.8V, I _D =0.35A			460	
Forward Transconductance	g _{FS}	V _{DS} =5V, I _D =0.55A		2		S
Input Capacitance	C _{iss}	V _{GS} =0V, V _{DS} =10V, f=100KHz		50		pF
Output Capacitance	C _{oss}			13		
Reverse Transfer Capacitance	C _{rss}			8		
Total Gate Charge	Q _g	V _{GS} =4.5V, V _{DS} =10V, I _D =0.55A		1.15		nC
Threshold Gate Charge	Q _{g(th)}			0.06		
Gate Source Charge	Q _{gs}			0.15		
Gate Drain Charge	Q _{gd}			0.23		
Turn-On DelayTime	t _{d(on)}	V _{DD} =10V, V _{GS} =4.5V, I _D =0.55A, R _G =6Ω		22		ns
Turn-On Rise Time	t _r			80		
Turn-Off DelayTime	t _{d(off)}			700		
Turn-Off Fall Time	t _f			380		
Maximum Body-Diode Continuous Current	I _S				0.35	A
Diode Forward Voltage	V _{SD}	I _S =0.35A, V _{GS} =0V	0.5		1.5	V

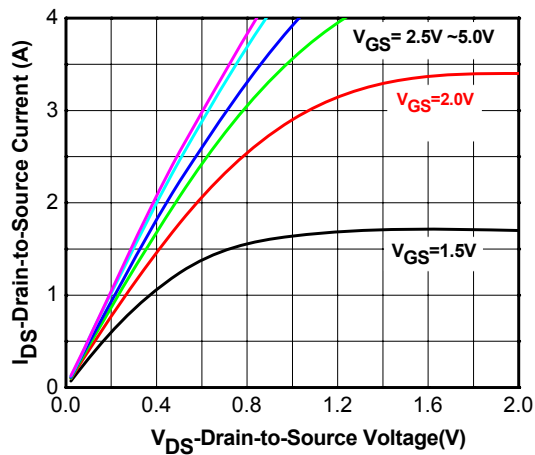
■ Marking

Marking	W28*
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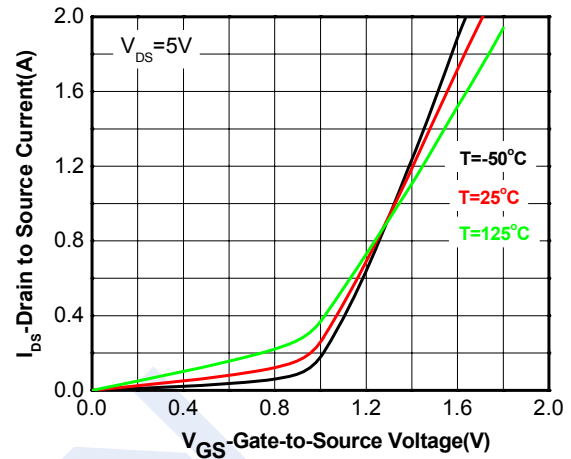
N-Channel MOSFET

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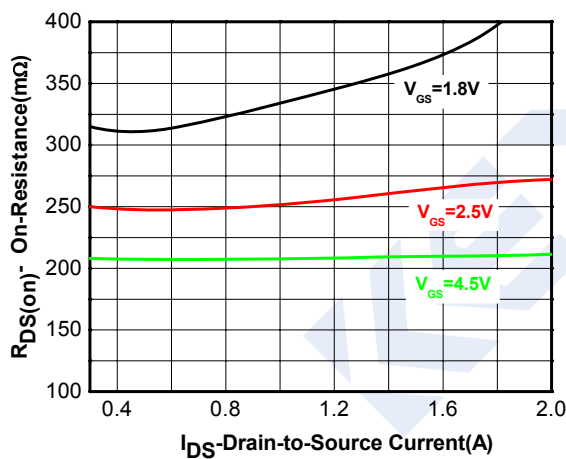
Typical Characteristics



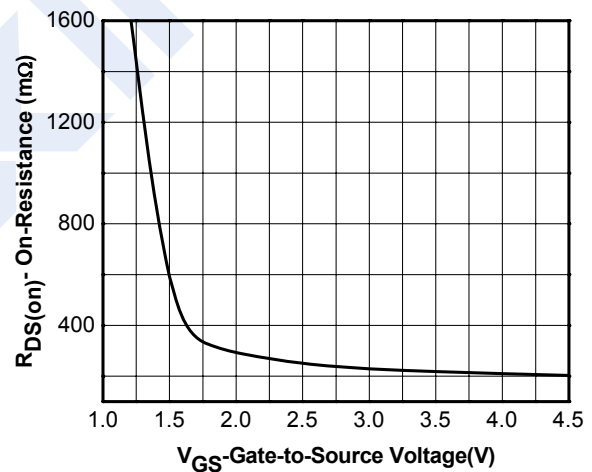
Output characteristics



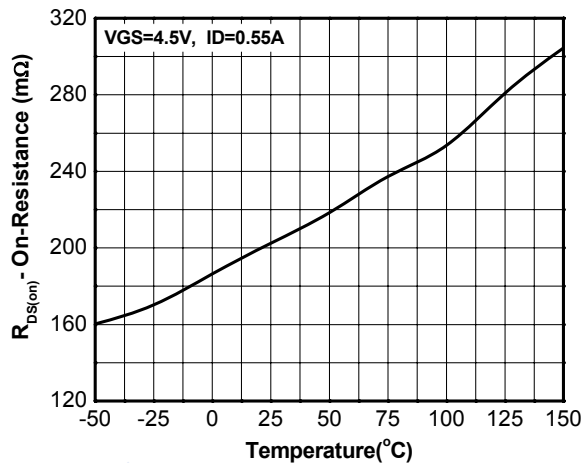
Transfer characteristics



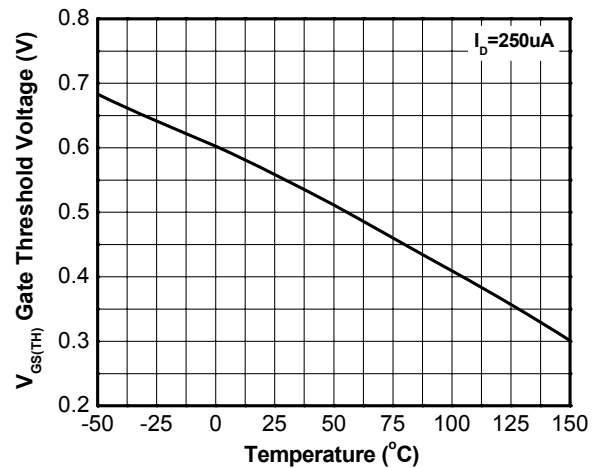
On-Resistance vs. Drain current



On-Resistance vs. Gate-to-Source voltage



On-Resistance vs. Junction temperature



Threshold voltage vs. Temperature

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Typical Characteristics

