FS2N7002

N-Channel Enhancement Mode MOSFET
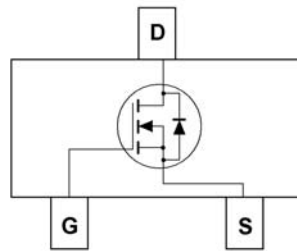
- **Features**

60V/0.5A,

$R_{DS(ON)}$ = 4Ω(MAX) @V_{GS} = 10V. I_D = 0.5A

$R_{DS(ON)}$ = 7.5Ω(MAX) @V_{GS} = 4.5V. I_D = 0.2A

Super High dense cell design for extremely low $R_{DS(ON)}$.

Reliable and Rugged.

SOT-23 for Surface Mount Package

- **General Description**

Power Management in Desktop Computer or DC/DC Converters .

- **Pin Configurations**

SOT23

- **Absolute Maximum Ratings** @T_A=25℃ unless otherwise noted

Parameter	Symbol	Ratings	Unit
Drain-Source Voltage	V_{DS}	60	V
Gate-Source Voltage	V_{GS}	±20	V
Drain Current-Continuous	I_D	0.5	A

● **Electrical Characteristics** @T_A=25℃ unless otherwise noted

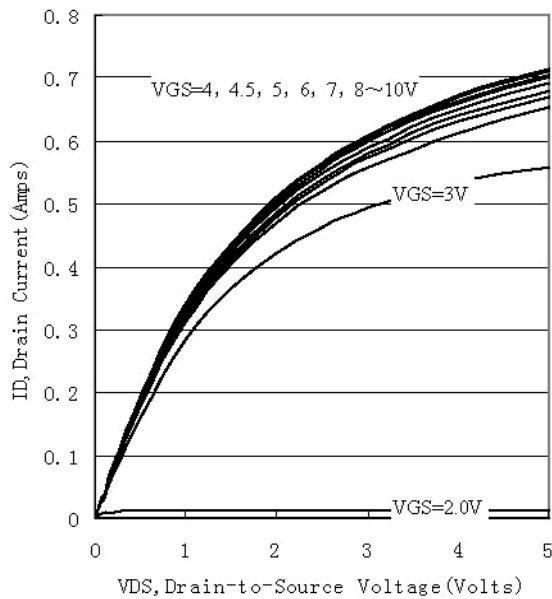| Parameter	Symbol	Test Conditions	Min	Typ.	Max	Units
Off Characteristics						
Drain to Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V, I_D=10μA	60	--	--	V
Zero-Gate Voltage Drain Current	I_{DSS}	V_{DS}=60V, V_{GS}=0V	--	--	1	μA
Gate Body Leakage Current, Forward	I_{GSSF}	V_{GS}=20V, V_{DS}=0V	--	--	100	nA
Gate Body Leakage Current, Reverse	I_{GSSR}	V_{GS}=-20V, V_{DS}=0V	--	--	-100	nA
On Characteristics						
Gate Threshold Voltage	$V_{GS(th)}$	V_{GS}= V_{DS}, I_D=250μA	1	--	2.5	V
Static Drain-source On-Resistance	$R_{DS(ON)}$	V_{GS} =10V, I_D =0.5A	--	3.25	4	Ω
		V_{GS} =4.5V, I_D =0.2A	--	5.5	7.5	Ω
Drain-Source Diode Characteristics and Maximum Ratings						
Drain-Source Diode Forward Voltage	V_{SD}	V_{GS} =0V, I_S=0.2A	--	--	2.5	V
Dynamic						
Input Capacitance	C_{iss}	V_{DS}=25V,V_{GS}=0V F=1MHz		22	45	pF
Output Capacitance	C_{oss}			11	24	pF
Reverse Transfer Capacitance	C_{rss}			2	5	pF

● **Typical Performance Characteristics**

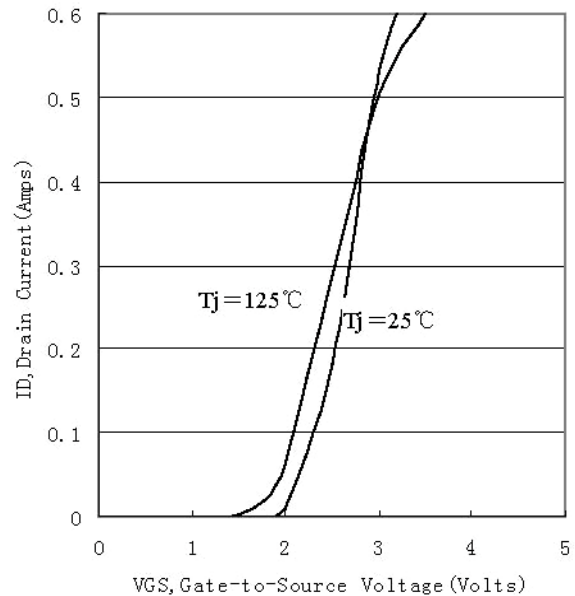**Figure 1**. **Output Characteristics**
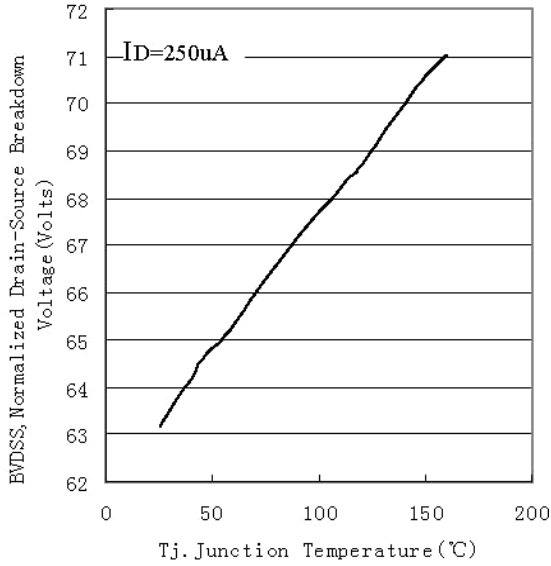

Figure 2. **Transfer Characteristics**

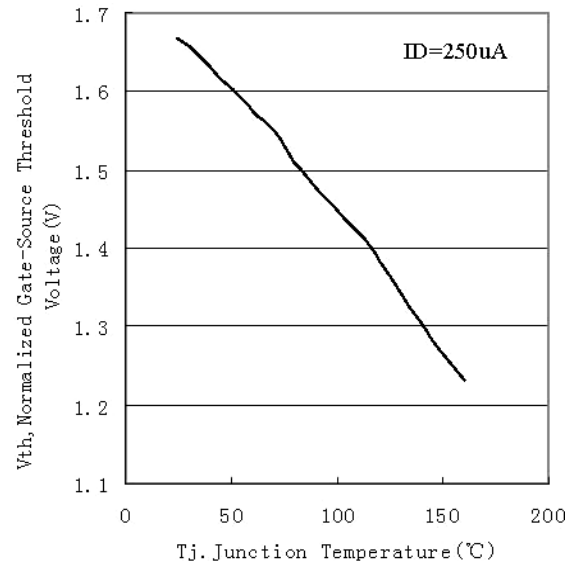Figure 3．**Breakdown Voltage Variation with Temperature**

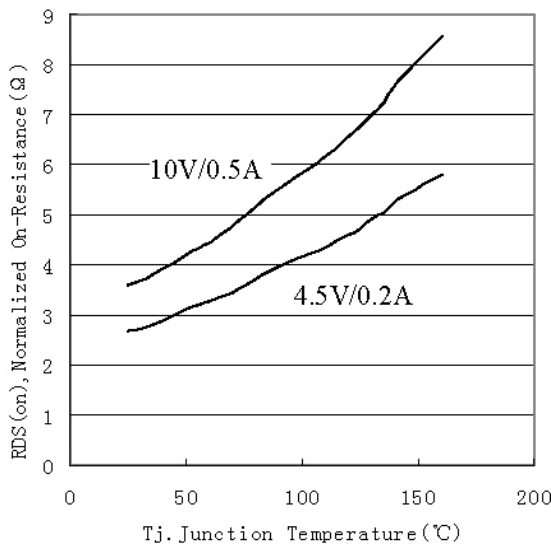Figure 4．**Gate Threshold Variation with Temperature**
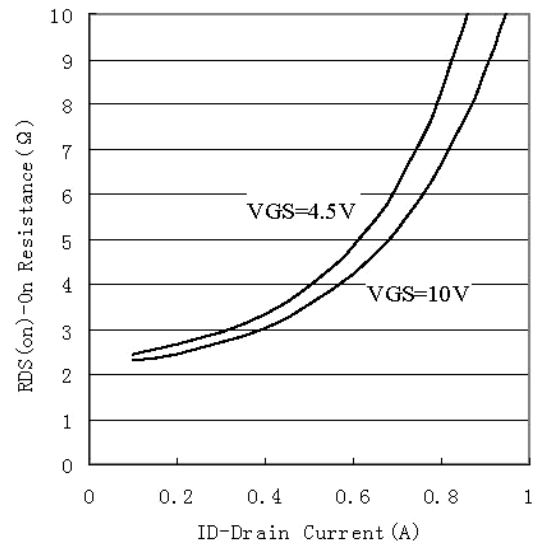
Figure 5．**On-Resistance Variation with Temperature**
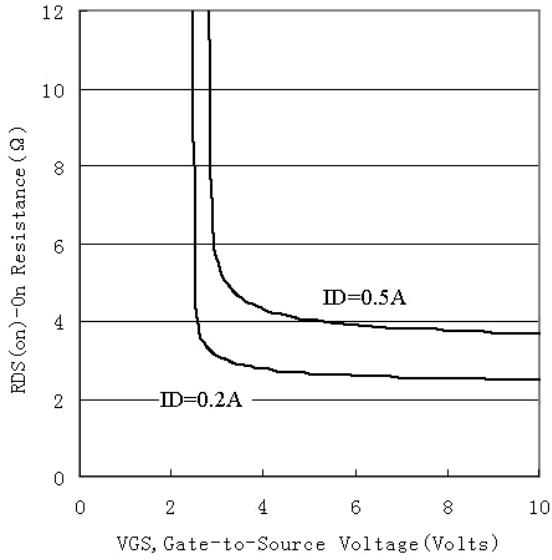
Figure 6．**On-Resistance vs. Drain Current**

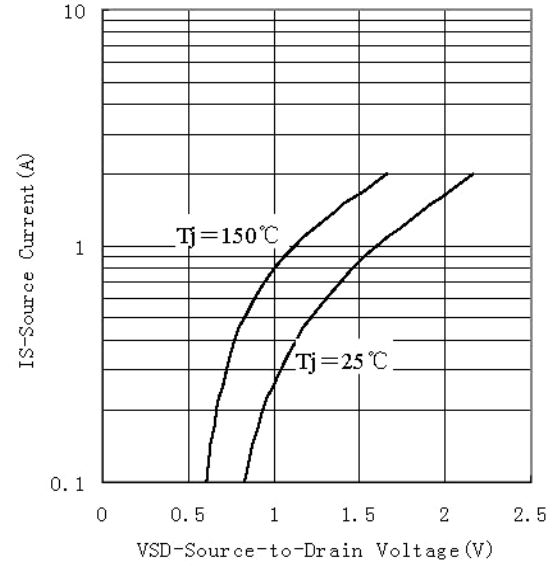**Figure 7**．**On-Resistance vs. Gate-to-Source Voltage**

Figure 8．**Source-Drain Diode Forward Voltage**

● **Package Information**

SOT23
Unit:mm