

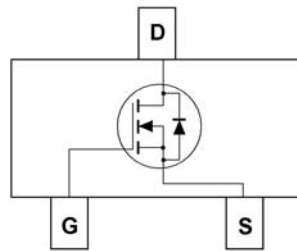


N-Channel Enhancement Mode MOSFET

- **Features**

60V/0.5A,
 $R_{DS(ON)} = 4\Omega(MAX) @V_{GS} = 10V, I_D = 0.5A$
 $R_{DS(ON)} = 7.5\Omega(MAX) @V_{GS} = 4.5V, I_D = 0.2A$
Super High dense cell design for extremely low $R_{DS(ON)}$.
Reliable and Rugged.
SOT-23 for Surface Mount Package

- **Pin Configurations**



SOT23

- **General Description**

Power Management in Desktop Computer or DC/DC Converters .

- **Absolute Maximum Ratings** @ $T_A=25^\circ C$ 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 @ $T_A=25^{\circ}\text{C}$ unless otherwise noted

Parameter	Symbol	Test Conditions	Min	Typ.	Max	Units
Off Characteristics						
Drain to Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V, I_D=10\mu A$	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	$V_{GS(th)}$	$V_{GS}=V_{DS}, I_D=250\mu A$	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}	$V_{DS}=25V, V_{GS}=0V$ $F=1\text{MHz}$		22	45	pF
Output Capacitance	C_{oss}			11	24	
Reverse Transfer Capacitance	C_{rss}			2	5	

● Typical Performance Characteristics

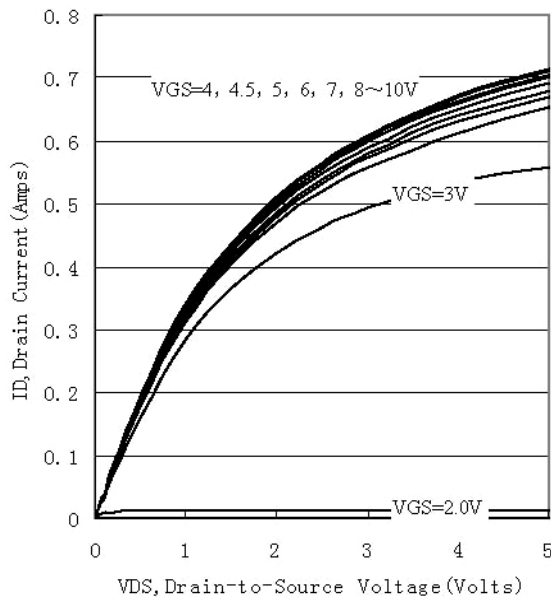


Figure 1. Output Characteristics

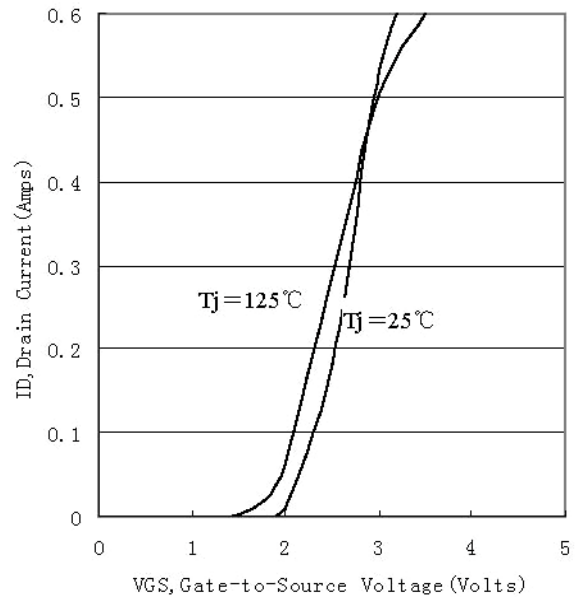


Figure 2. Transfer Characteristics

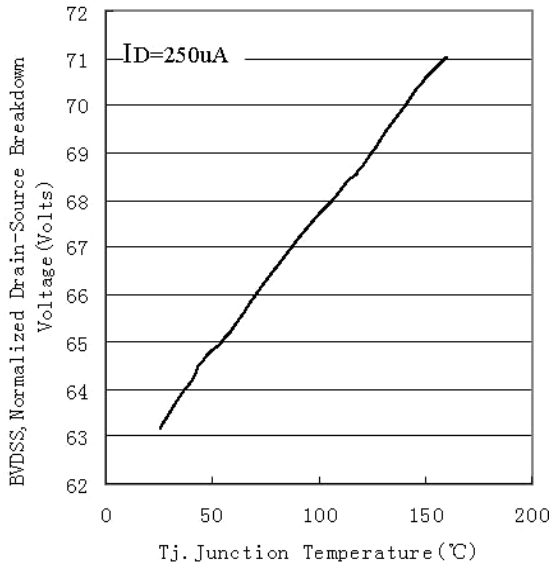


Figure 3. Breakdown Voltage Variation with Temperature

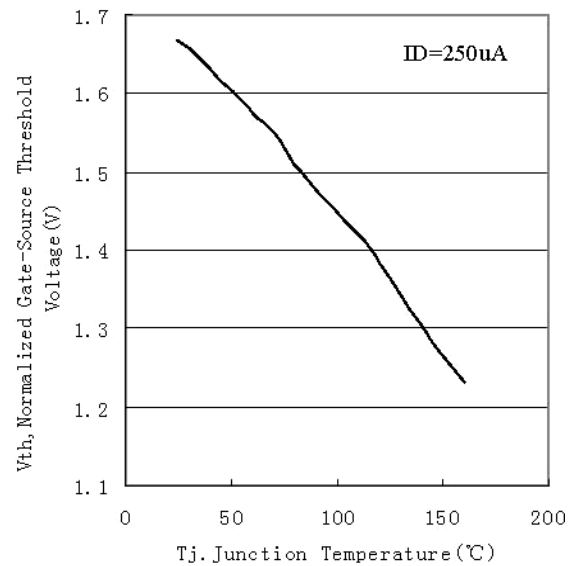


Figure 4. Gate Threshold Variation with Temperature

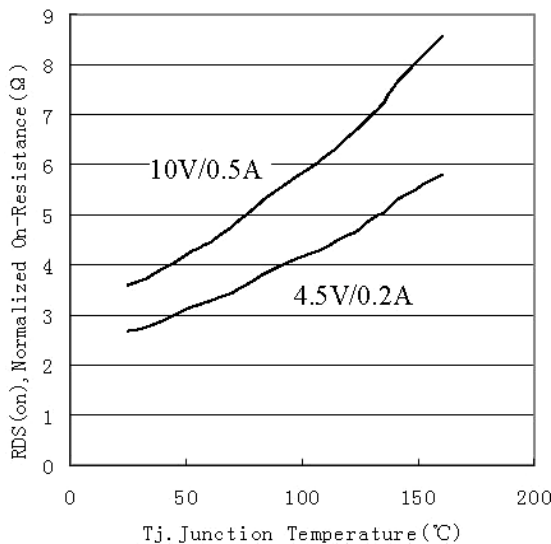


Figure 5. On-Resistance Variation with Temperature

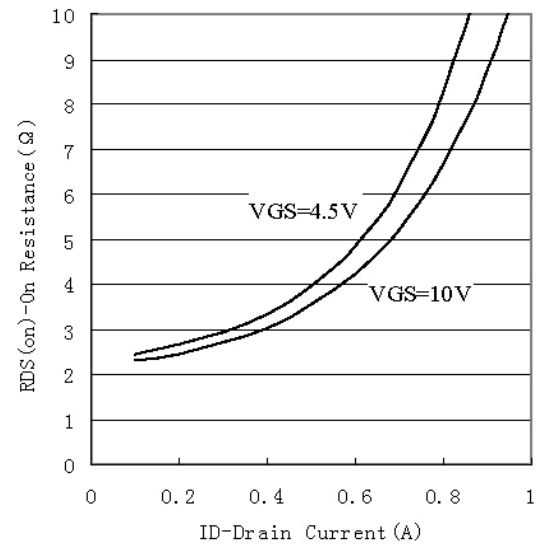


Figure 6. On-Resistance vs. Drain Current

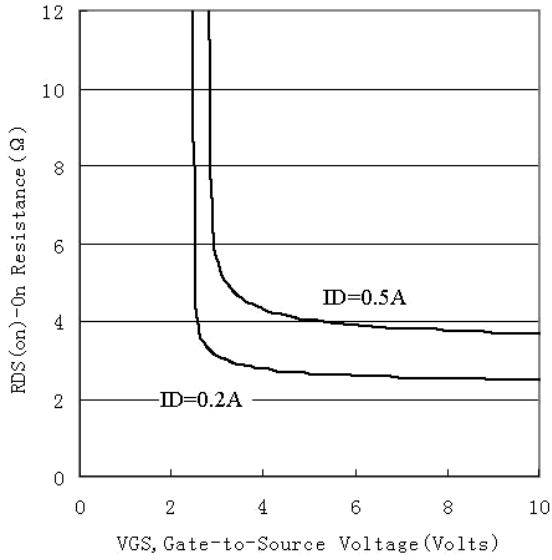


Figure 7. On-Resistance vs. Gate-to-Source Voltage

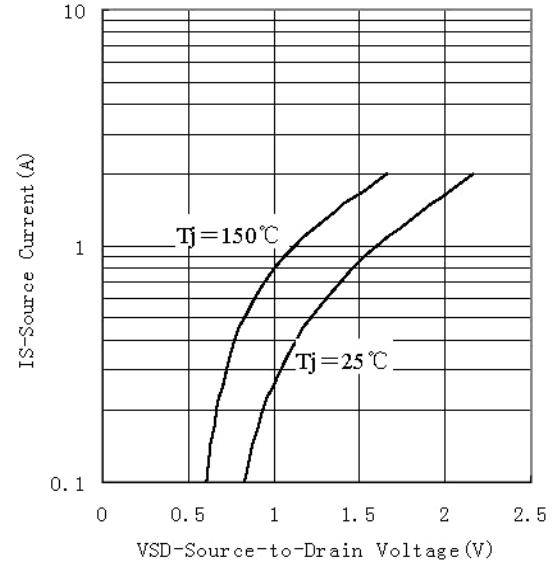


Figure 8. Source-Drain Diode Forward Voltage

● Package Information

