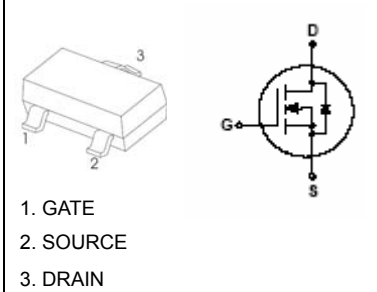


N-Channel Enhancement Mode MOSFET

Feature

- 60V/0.2A, $R_{DS(ON)} = 7.5\Omega$ (MAX) @ $V_{GS} = 10V$, $I_D = 0.2A$
 $R_{DS(ON)} = 7.5\Omega$ (MAX) @ $V_{GS} = 5V$, $I_D = 0.05A$
- Super High dense cell design for extremely low $R_{DS(ON)}$.
- Reliable and Rugged.
- SOT-23 for Surface Mount Package.

SOT-23



Applications

- Power Management in Desktop Computer or DC/DC Converters .

Absolute Maximum Ratings

$T_A = 25^\circ\text{C}$ Unless Otherwise noted

Parameter	Symbol	Limit	Units
Drain-Source Voltage	V_{DS}	60	V
Gate-Source Voltage	V_{GS}	± 20	V
Drain Current-Continuous	I_D	0.2	A
Power Dissipation	P_D	0.225	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	556	$^\circ\text{C}/\text{W}$
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-50~+150	

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	BVDSS	VGS=0V, ID=250μA	60	-	-	V
Zero-Gate Voltage Drain Current	IDSS	VDS=60V, VGS=0V	-	-	1	μA
Gate Body Leakage Current, Forward	IGSSF	VGS=20V, VDS=0V	-	-	100	nA
Gate Body Leakage Current, Reverse	IGSSR	VGS=-20V, VDS=0V	-	-	-100	nA
On Characteristics						
Gate Threshold Voltage	VGS(th)	VGS= VDS, ID=250μA	1	-		V
Static Drain-source	RDS(ON)	VGS =10V, ID =0.2A	-		7.5	
On-Resistance *		VGS =5V, ID =0.05A	-		7.5	Ω
Drain-Source Diode Characteristics and Maximum Ratings						
Drain-Source Diode Forward Voltage	VSD	VGS =0V, IS=0.2A			2.5	V

Notes :

*Pulse Test : Pulse Width $\leq 300\mu s$, Duty Cycle $\leq 2\%$.

N-Channel Enhancement Mode MOSFET

Typical Characteristics

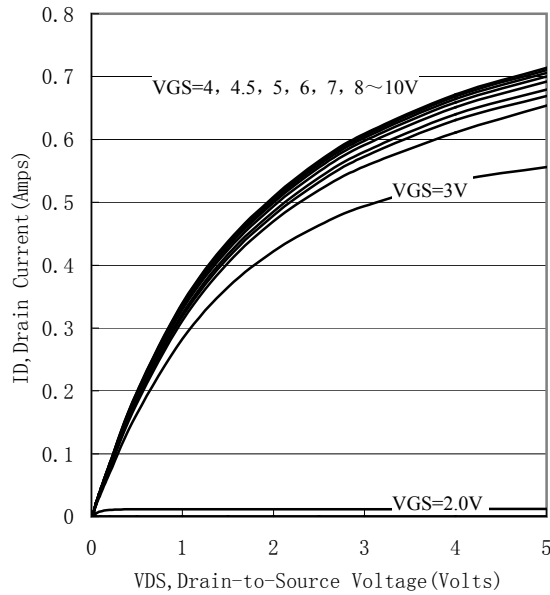


Figure 1. Output Characteristics

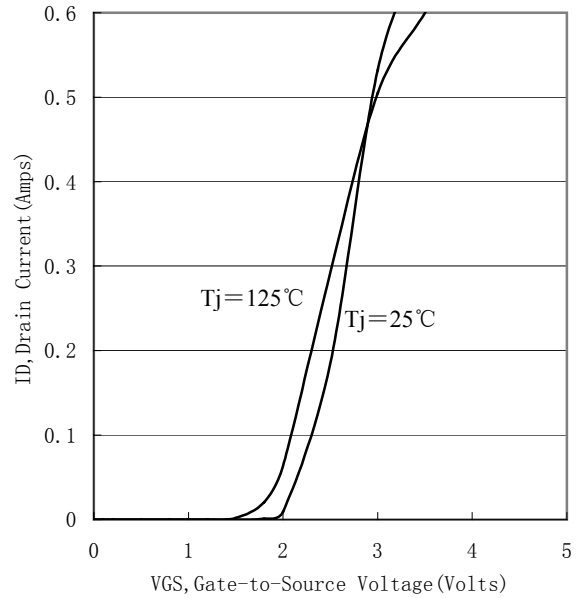


Figure 2. Transfer Characteristics

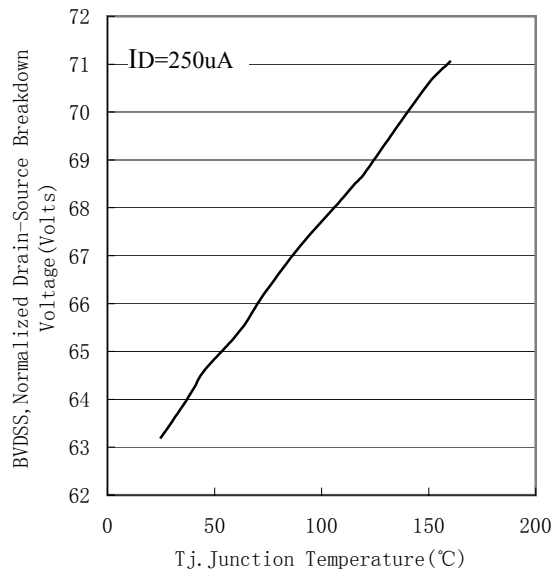


Figure 3. Breakdown Voltage Variation with Temperature

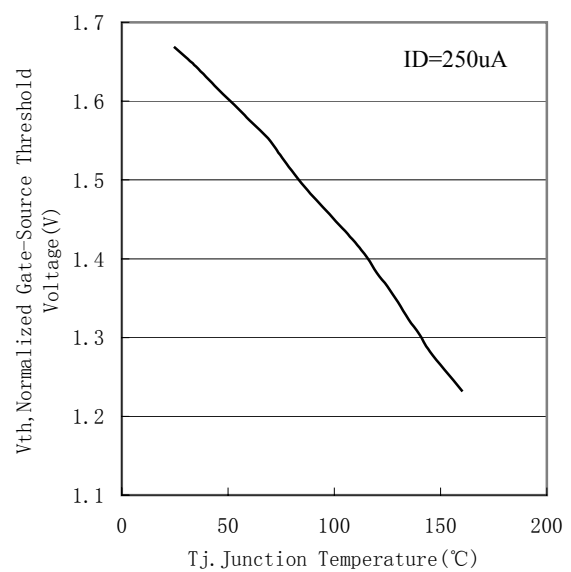


Figure 4. Gate Threshold Variation with Temperature

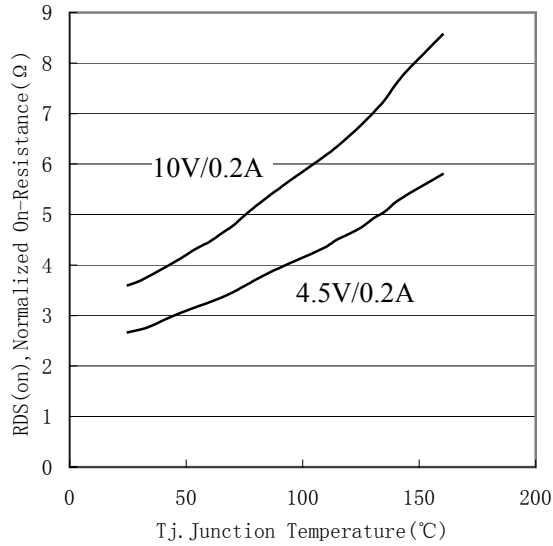


Figure 5. On-Resistance Variation with Temperature

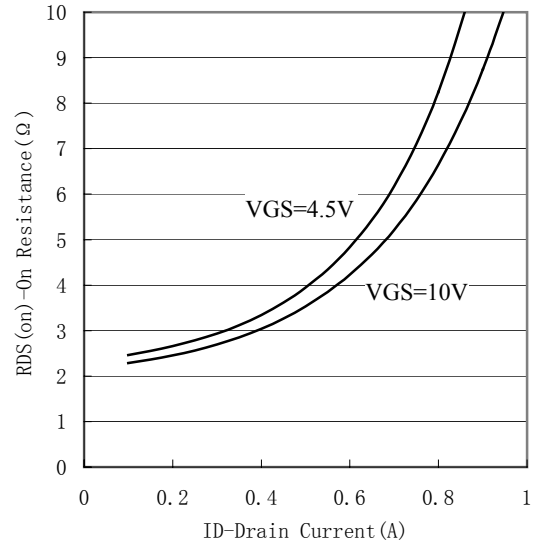


Figure 6. On-Resistance vs. Drain Current

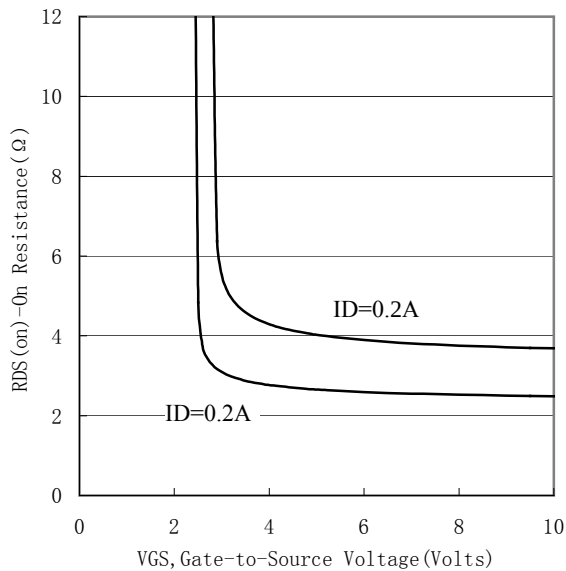


Figure 7. On-Resistance vs. Gate-to-Source Voltage

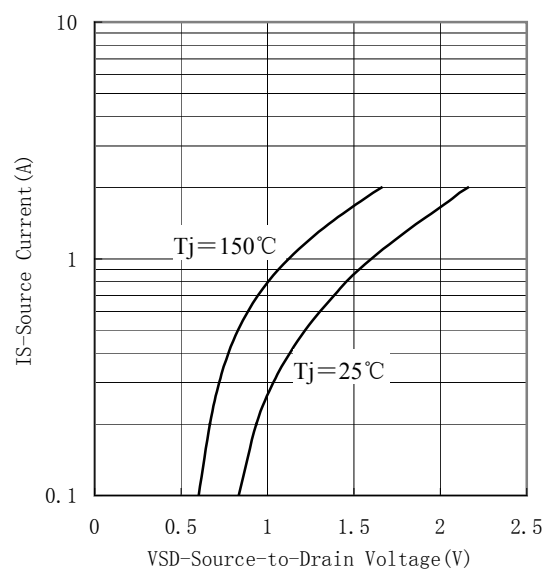


Figure 8. Source-Drain Diode Forward Voltage