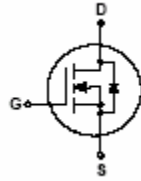
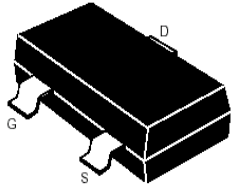


**SOT-23**

**Features**

- 60V/0.2A,  $R_{DS(ON)} = 7.5\Omega$  (MAX) @  $V_{GS} = 10V, I_D = 0.5A$   
 $R_{DS(ON)} = 7.5\Omega$  (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.

**MAXIMUM RANTINGS**

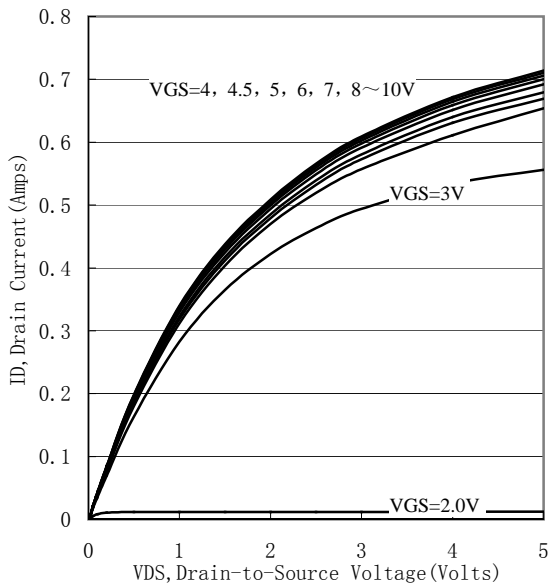
Parameter	Symbol	Limit	Units
Drain-Source Voltage	$V_{DS}$	60	V
Gate-Source Voltage	$V_{GS}$	$\pm 20$	V
Drain Current-Continuous	$I_D$	0.2	A
Power Dissipation	$P_D$	0.225	W
Thermal Resistance from Junctin to Ambient	$R_{\theta JA}$	556	$^{\circ}C/W$
Junction Temperature	$T_J$	150	$^{\circ}C$
Storage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

**Electrical Characteristics**

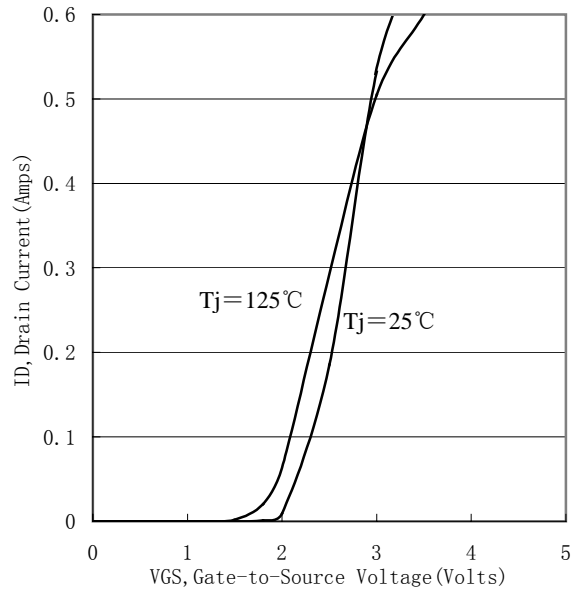
Parameter	Symbol	Test Conditions	Min	Typ.	Max	Units
<b>Off Characteristics</b>						
Drain to Source Breakdown Voltage	BVDSS	$V_{GS}=0V, I_D=250\mu A$	60	-	-	V
Zero-Gate Voltage Drain Current	IDSS	$V_{DS}=60V, V_{GS}=0V$	-	-	1	$\mu A$
Gate Body Leakage Current, Forward	IGSSF	$V_{GS}=20V, V_{DS}=0V$	-	-	100	nA
Gate Body Leakage Current, Reverse	IGSSR	$V_{GS}=-20V, V_{DS}=0V$	-	-	-100	nA
<b>On Characteristics</b>						
Gate Threshold Voltage	$V_{GS(th)}$	$V_{GS}=V_{DS}, I_D=250\mu A$	1	-		V
Static Drain-source On-Resistance *	$R_{DS(ON)}$	$V_{GS}=10V, I_D=0.5A$	-		7.5	$\Omega$
		$V_{GS}=5V, I_D=0.05A$	-		7.5	$\Omega$
<b>Drain-Source Diode Characteristics and Maximum Ratings</b>						
Drain-Source Diode Forward Voltage	VSD	$V_{GS}=0V, I_S=0.2A$			2.5	V

**Notes :**

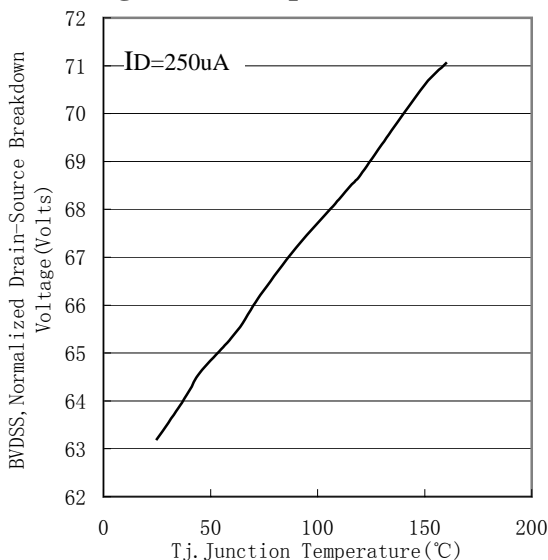
\*Pulse Test : Pulse Width  $\leq 300\mu s$ , Duty Cycle  $\leq 2\%$ .



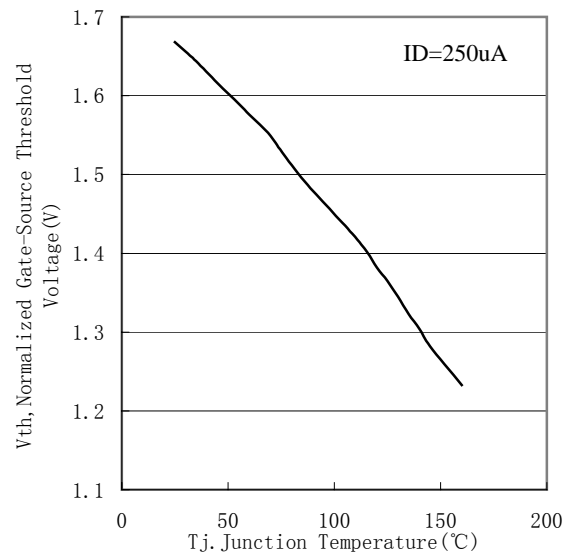
**Figure 1. Output Characteristics**



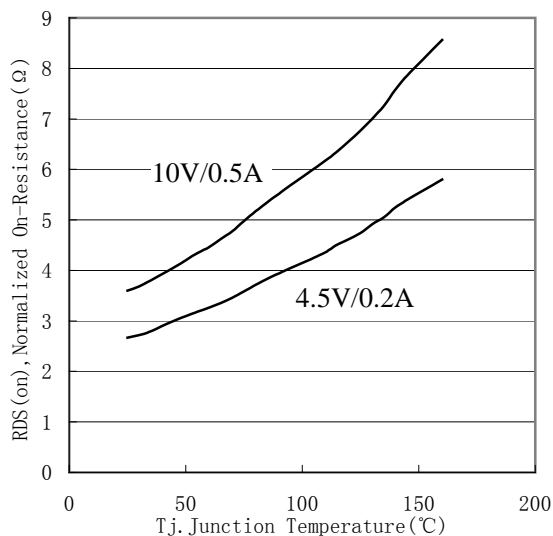
**Figure 2. Transfer Characteristics**



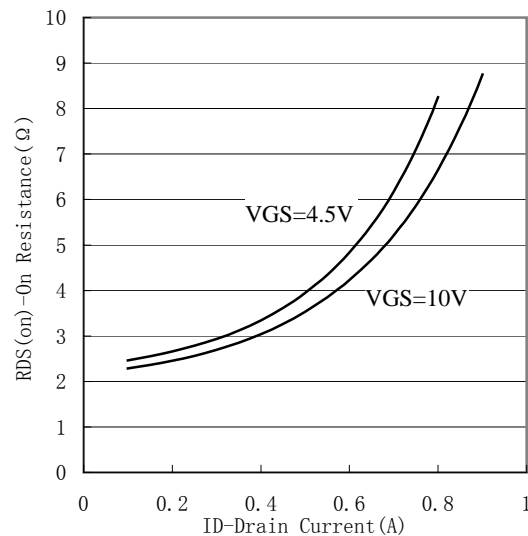
**Figure 3. Breakdown Voltage Variation with Temperature**



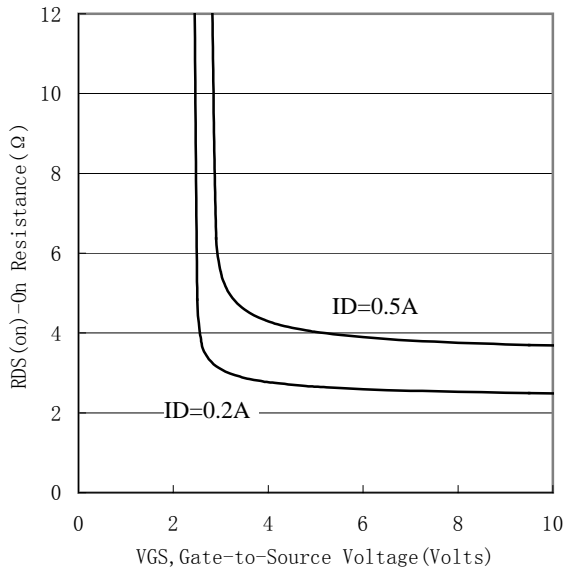
**Figure 4. Gate Threshold Variation with Temperature**



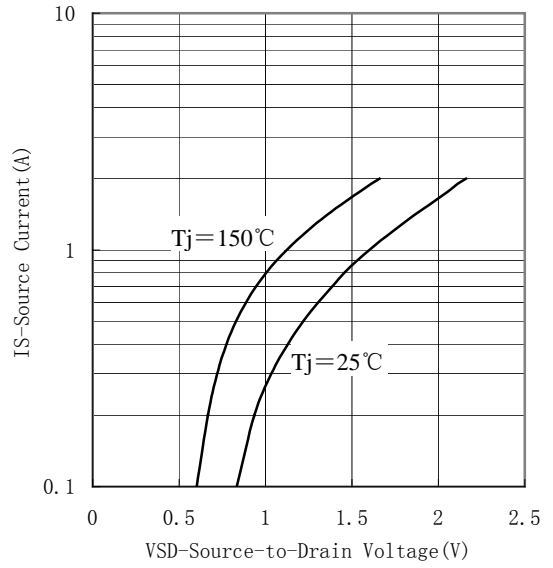
**Figure 5. On-Resistance Variation with Temperature**



**Figure 6. On-Resistance vs. Drain Current**

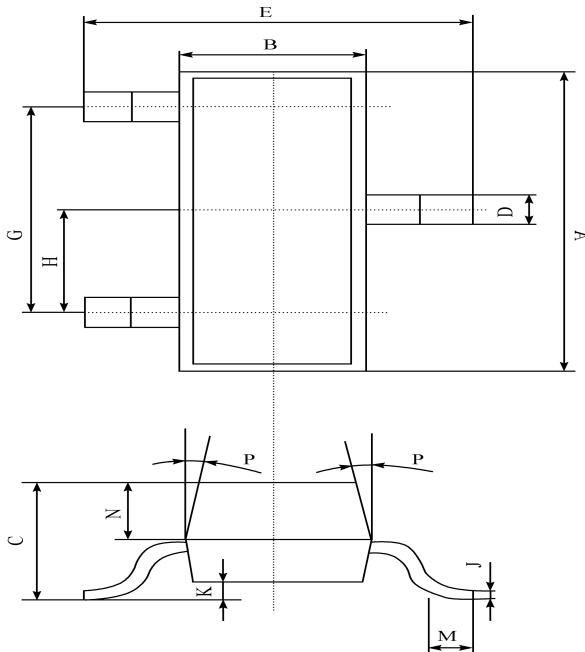


**Figure 7. On-Resistance vs. Gate-to-Source Voltage**



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

**SOT-23 PACKAGE OUTLINE** Plastic surface mounted package



SOT-23	
A	2.90 ± 0.10
B	1.30 ± 0.10
C	1.00 ± 0.10
D	0.40 ± 0.10
E	2.40 ± 0.20
G	1.90 ± 0.10
H	0.95 ± 0.05
J	0.13 ± 0.05
K	0.00-0.10
M	≥ 0.2
N	0.60 ± 0.10
P	7 ± 2°

(UNIT): mm