

Description

- High speed switching application.

Features

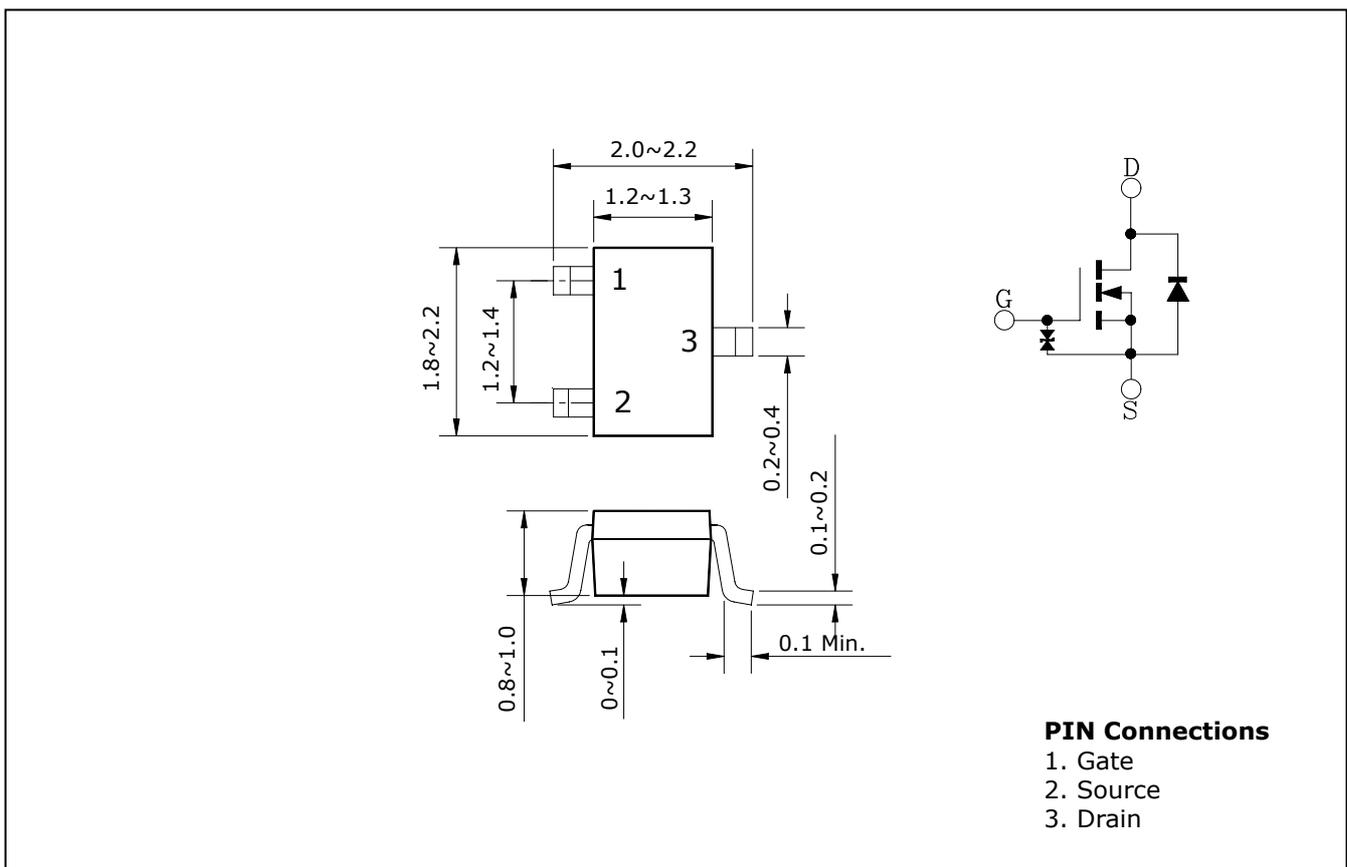
- High density cell design for low $R_{DS(ON)}$.
- Voltage controlled small signal switch
- Include Zener protection for ESD ruggedness.

Ordering Information

Type NO.	Marking	Package Code
STK0602U	K62	SOT-323

Outline Dimensions

unit : mm



Absolute maximum ratings

(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Drain-Source voltage	V_{DSS}	60	V
Gate-Source voltage	V_{GS}	±8	V
Maximum Drain current	I_D	200	mA
Pulsed Drain Current	I_{DP}	800	mA
Drain Power dissipation	P_D	200	mW
Operating Junction and Storage temperature range	T_J, T_{stg}	-55~150	°C

Electrical Characteristics

(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Drain-Source breakdown voltage	BV_{DSS}	$I_D=10\mu A, V_{GS}=0$	60	-	-	V
Gate-Threshold voltage	$V_{GS(th)}$	$I_D=1\mu A, V_{DS}=5V$	0.8	-	1.8	V
Zero Gate voltage drain current	I_{DSS}	$V_{DS}=60V, V_{GS}=0$	-	-	1.0	μA
Gate-body leakage	I_{GSS}	$V_{DS}=0V, V_{GS}=\pm 6V$	-	-	±1.0	μA
Drain-Source on-resistance	$R_{DS(on)}$	$V_{GS}=5V, I_D=10mA$	-	2.5	6.0	Ω
		$V_{GS}=10V, I_D=10mA$	-	2.0	4.0	
Forward transconductance	g_{fs}	$V_{DS}=5V, I_D=20mA$	20	65	-	mS
Input capacitance	C_{iss}	$V_{DS}=5V, V_{GS}=0, f=1MHz$	-	26	-	pF
Output capacitance	C_{oss}		-	20	-	
Reverse Transfer capacitance	C_{rss}		-	10	-	
Turn-on delay time	$t_{d(on)}$	$V_{DD}=5V, I_D=10mA$ $V_{GS}=5V$ $R_L=500\Omega$	-	150	-	ns
Rise time	t_r		-	240	-	
Turn-off delay time	$t_{d(off)}$		-	200	-	
Fall time	t_f		-	300	-	

Electrical Characteristic Curves

Fig. 1 $I_D - V_{DS}$

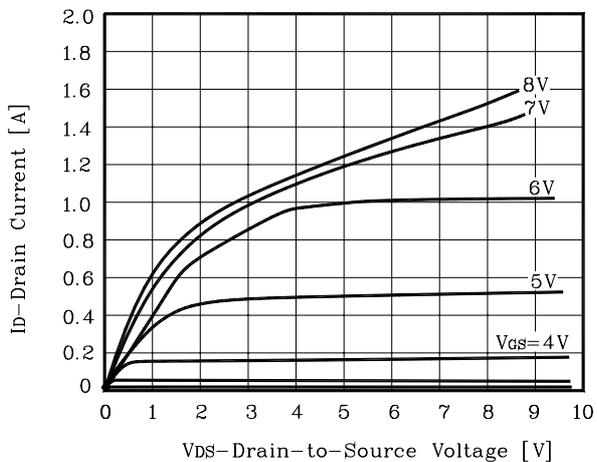


Fig. 2 $I_D - V_{DS}$

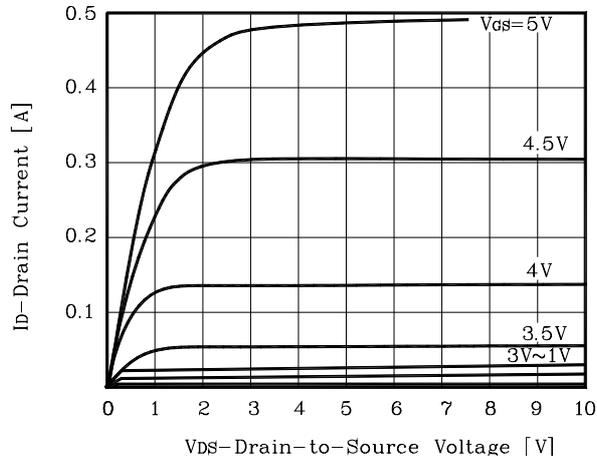


Fig. 3 $I_D - V_{GS}$

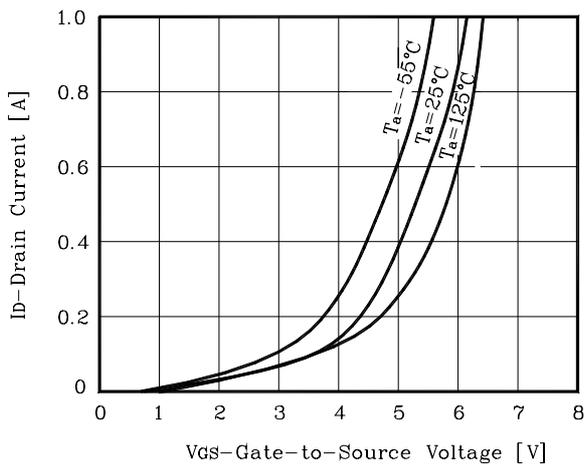


Fig. 4 $r_{DS(on)} - I_D$

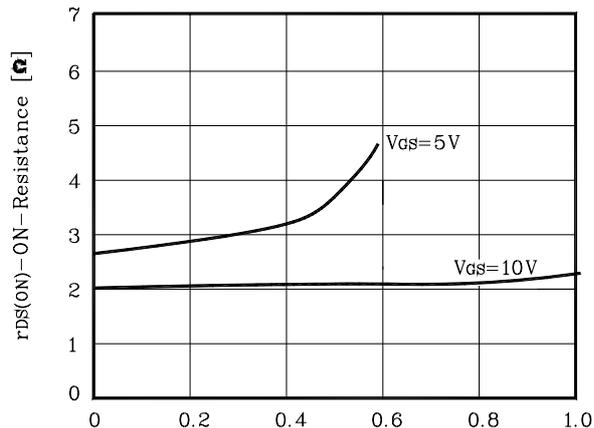


Fig. 5 C - V_{DS}

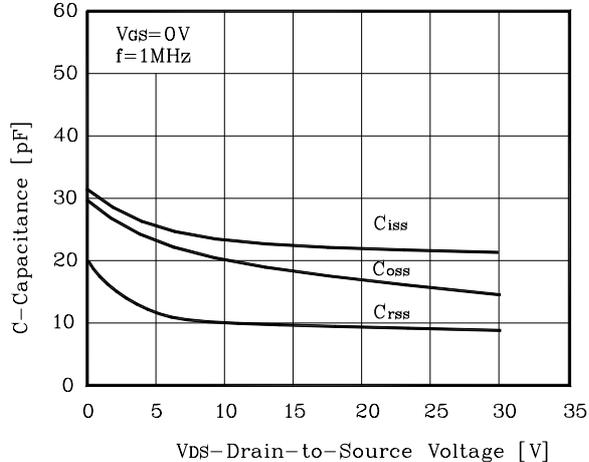
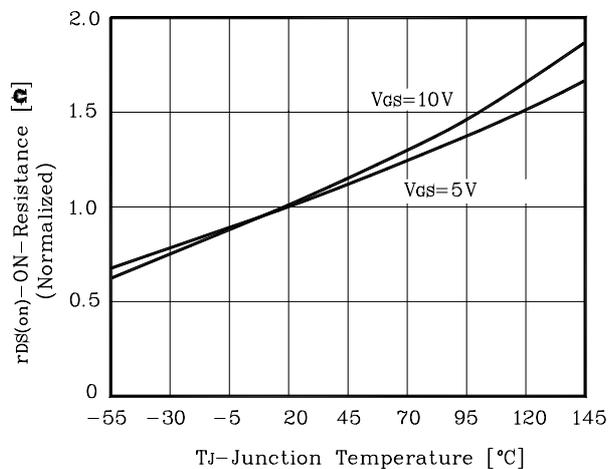


Fig. 6 $r_{DS(on)} - T_J$



Electrical Characteristic Curves

Fig. 7 $r_{DS(on)}$ - V_{GS}

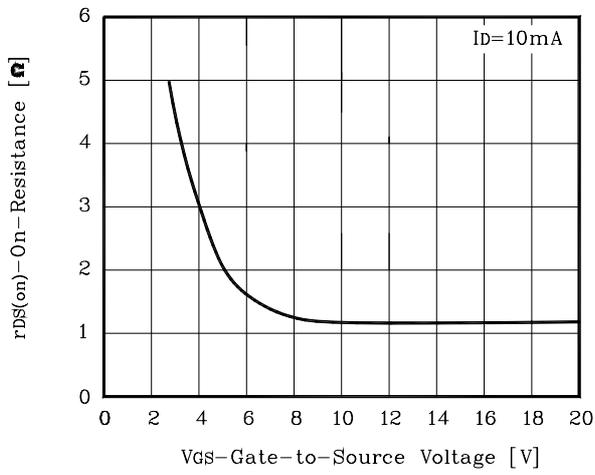


Fig. 8 I_S - V_{SD}

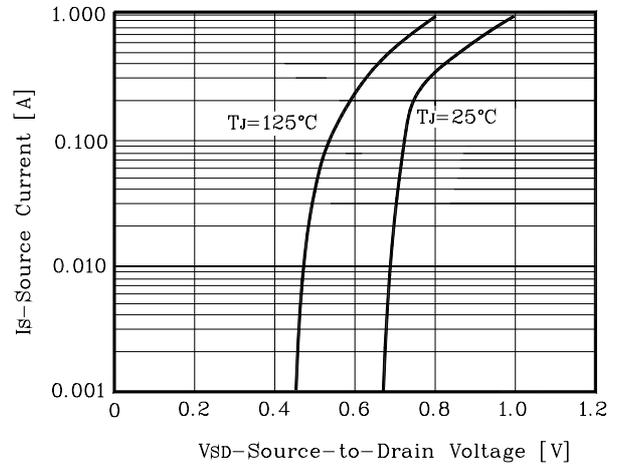
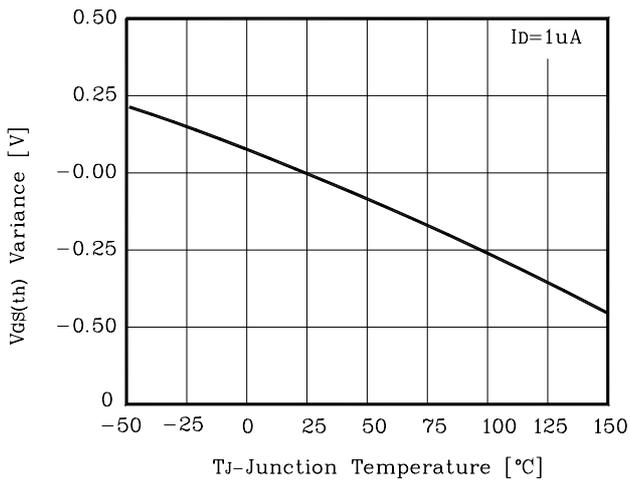


Fig. 9 $V_{GS(th)}$ - T_J



These AUK products are intended for usage in general electronic equipments(Office and communication equipment, measuring equipment, domestic electrification, etc.).

Please make sure that you consult with us before you use these AUK products in equipments which require high quality and/or reliability, and in equipments which could have major impact to the welfare of human life(atomic energy control, airplane, spaceship, traffic signal, combustion central, all types of safety device, etc.).

AUK cannot accept liability to any damage which may occur in case these AUK products were used in the mentioned equipments without prior consultation with AUK.