KODENSHI AUK

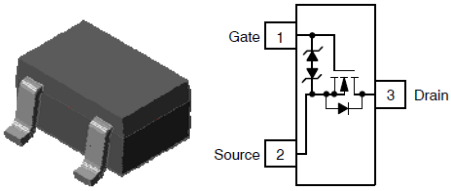
STK0602U

N-Channel Enhancement Mode MOSFET

High Speed Switching Application

Features

- Low On-Resistance
- Low Threshold: Typ. 1.3V
- Low Input Capacitance: 26pF
- Fast Swtiching Speed
- ESD Protected



SOT-323

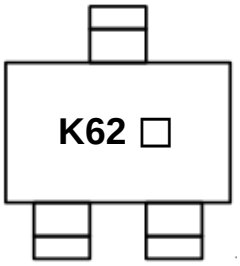
Applications

- Ultra high speed switching application

Ordering Information

Part Number	Marking Code	Package	Packaging
STK0602U	**K62 □**	**SOT-323**	**Tape & Reel**

Marking Information



K62 = Specific Device Code

□ = Year & Week Code Marking

Absolute Maximum Ratings (T_{amb}=25℃, Unless otherwise specified)

Characteristic	Symbol	Ratings	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 [1]	I_{DP}	800	mA
Operating junction temperature	T_j	150	°C
Storage temperature range	T_{stg}	-55 ~ 150	°C
Power dissipation [2]	P_D	200	mW

[1] PW ≤ 10μs, Duty cycle ≤ 1%

[2] Device mounted on FR-4 board with recommended pad layout.

Electrical Characteristics (T_{amb}=25℃, Unless otherwise specified)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Drian-Source breakdown voltage	BV_{DSS}	I_D=10μA, V_{GS}=0	60	-	-	V
Gate-Threshold voltage	$V_{GS(th)}$	I_D=1μA, 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}=±6V	-	-	±1.0	μA
Drain-Source on-resistance [3)]	$R_{DS(ON)}$	V_{GS}=5V, I_D=10mA	-	2.5	6.0	Ω
		V_{GS}=10V, I_D=10mA	-	2.0	4.0	
Forward trans-conductance	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=500Ω		150		ns
Rise time	t_r			240		
Turn-off delay time	$t_{d(off)}$		-	200	-	
Fall time	t_f		-	300	-	

[3)] Pulse test: t_P≤300㎲, Duty cycle≤1%

Electrical Characteristic Curves

Fig. 1 I_D - V_{DS}

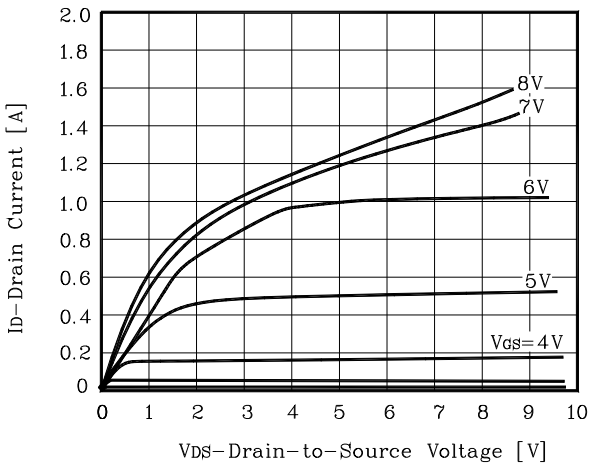


Fig. 2 I_D - V_{DS}

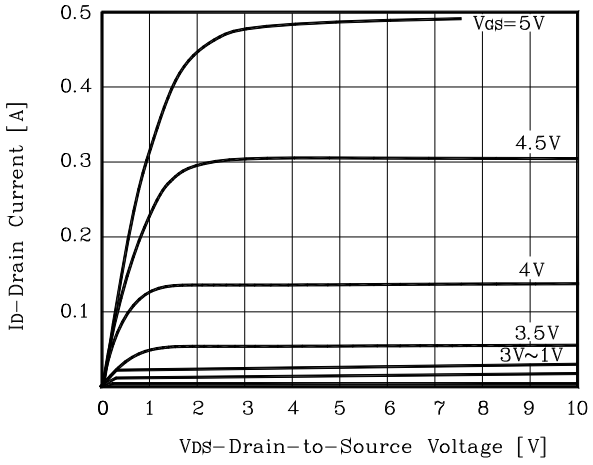


Fig. 3 I_D - V_{GS}

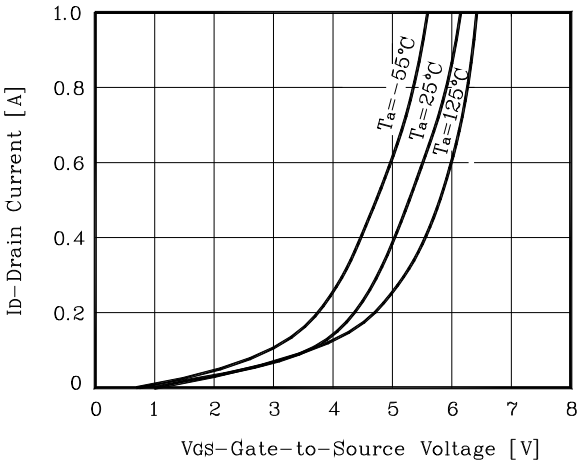


Fig. 4 $R_{DS(on)}$ - I_D

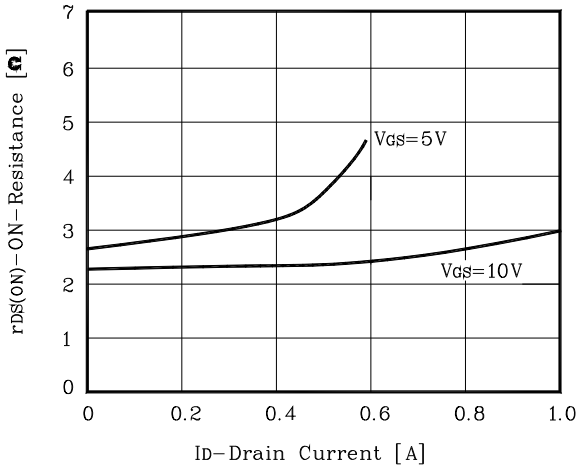


Fig. 5 Capacitance - V_{DS}

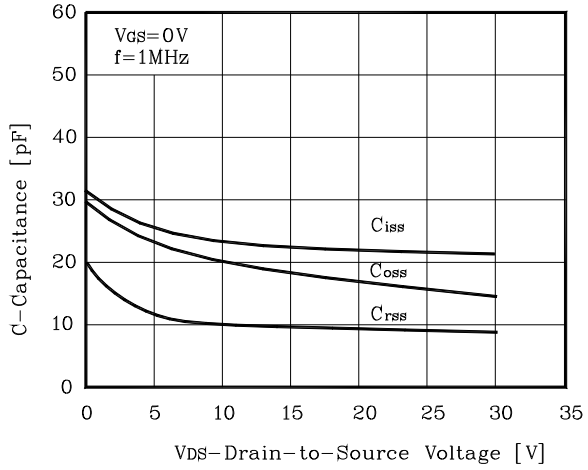
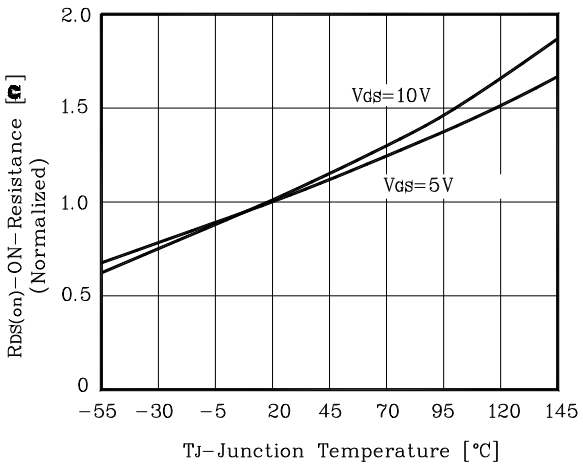


Fig. 6 $R_{DS(on)}$ - T_J



Electrical Characteristic Curves (Continue)

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

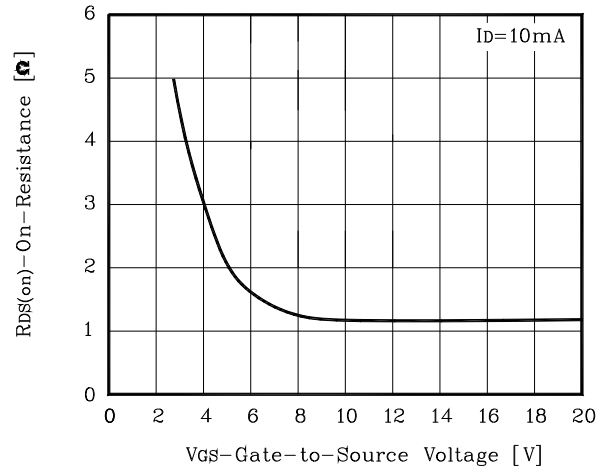


Fig. 8 I_S - V_{SD}

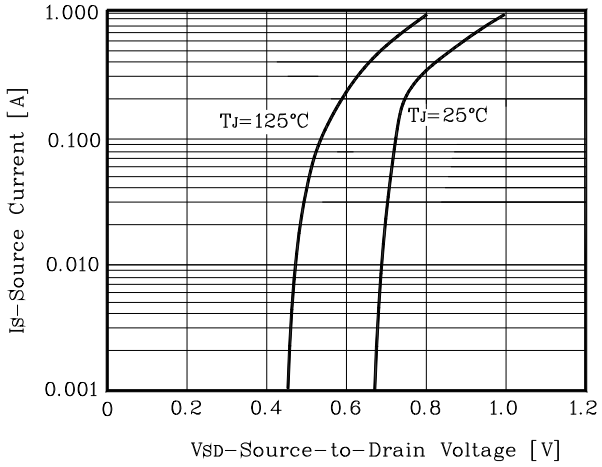
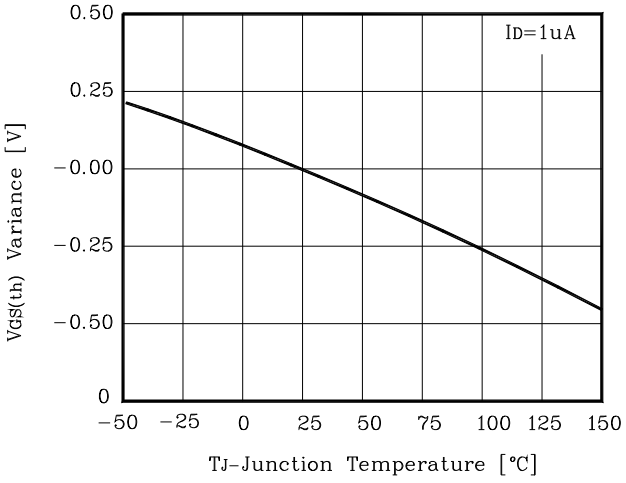
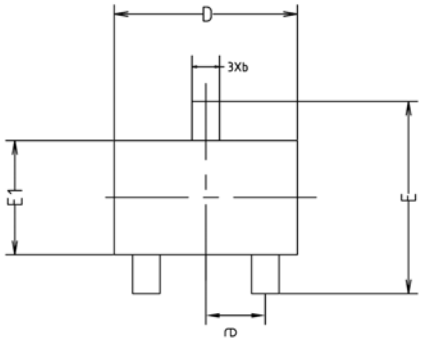
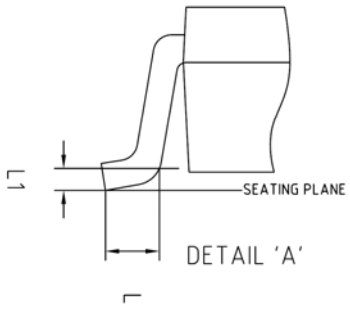


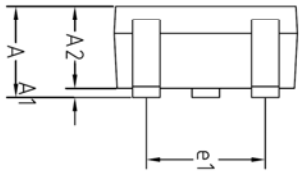
Fig. 9 $V_{GS(th)}$ - T_J

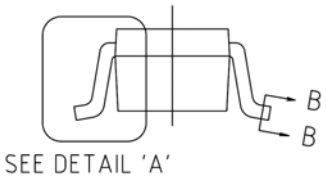


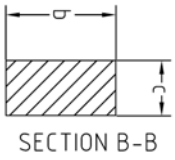
Package Outline Dimensions





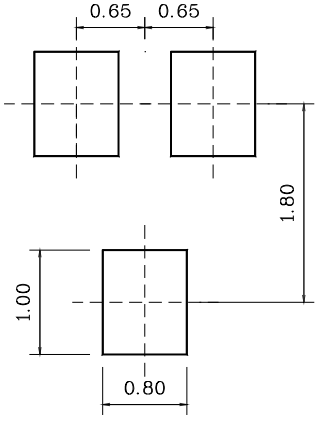






SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	0.90	-	1.25	
A1	0.00	-	0.10	
A2	0.85	0.90	0.95	
b	0.30	-	0.40	
c	0.10	-	0.25	
D	1.90	2.00	2.10	
E	1.95	2.10	2.25	
E1	1.15	1.25	1.35	
e	0.65BSC			
e1	1.20	-	1.40	
L	0.10	-	-	
L1	0.12BSC			

※ Recommend PCB solder land (Unit : mm)



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