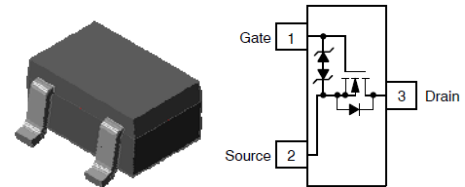


High Speed Switching Application

Features

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



Applications

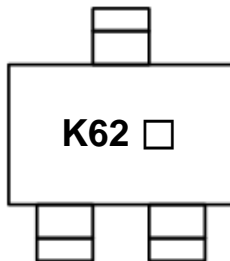
- Ultra high speed switching application

SOT-323

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°C, 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°C, Unless otherwise specified)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Drain-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≤300μs, Duty cycle≤1%

Electrical Characteristic Curves

Fig. 1 $I_D - V_{DS}$

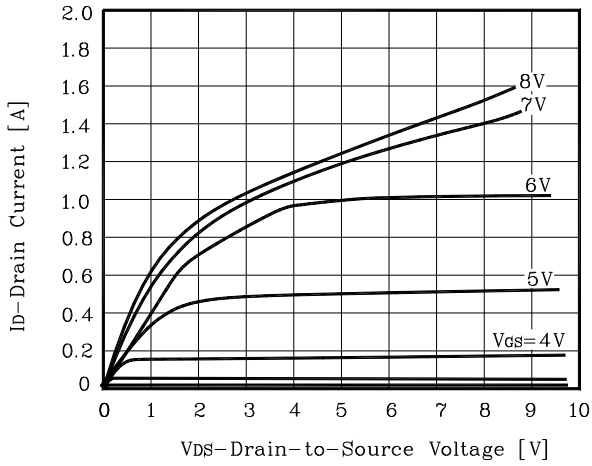


Fig. 2 $I_D - V_{DS}$

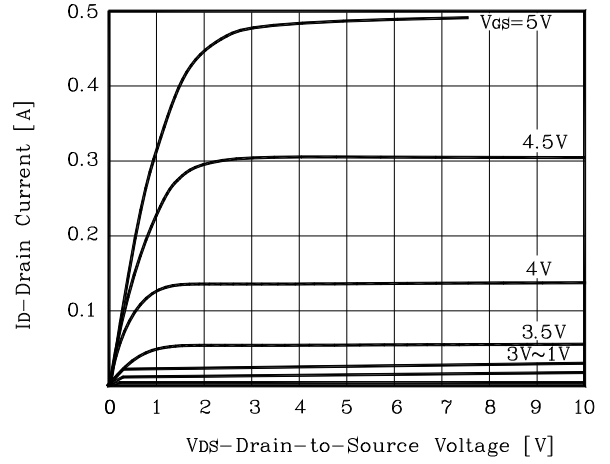


Fig. 3 $I_D - V_{GS}$

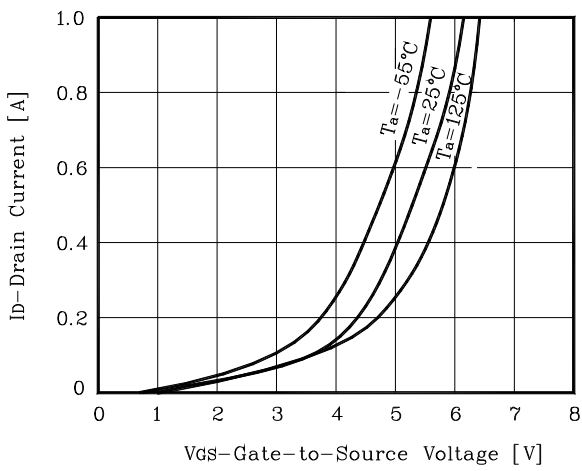


Fig. 4 $R_{DS(on)} - I_D$

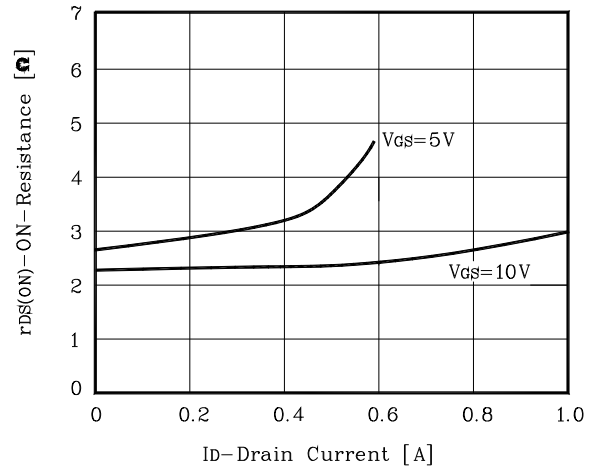


Fig. 5 Capacitance - V_{DS}

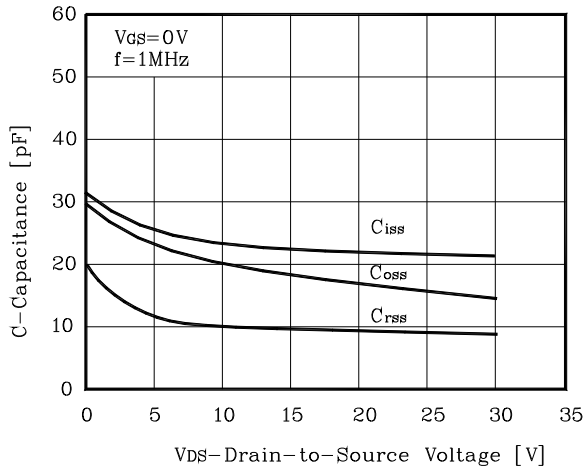
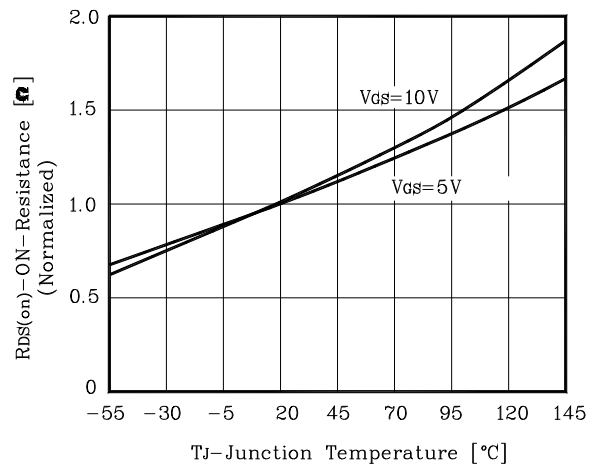


Fig. 6 $R_{DS(on)} - T_J$



Electrical Characteristic Curves (Continue)

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

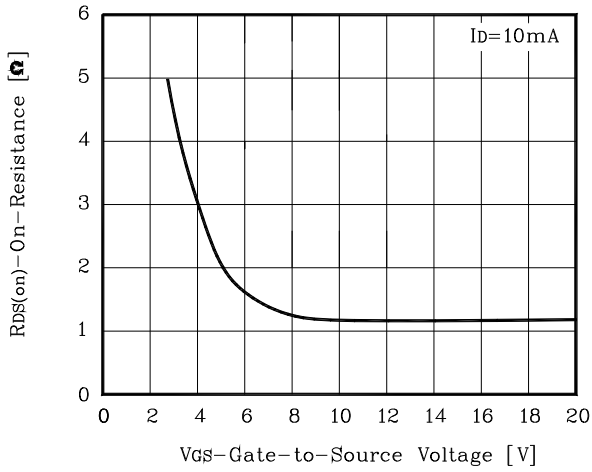


Fig. 8 $I_S - V_{SD}$

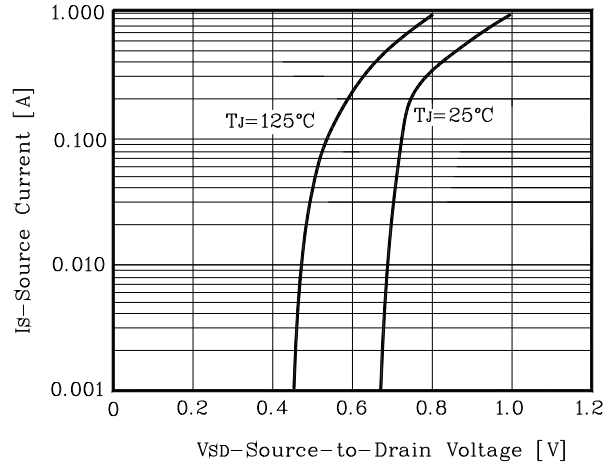
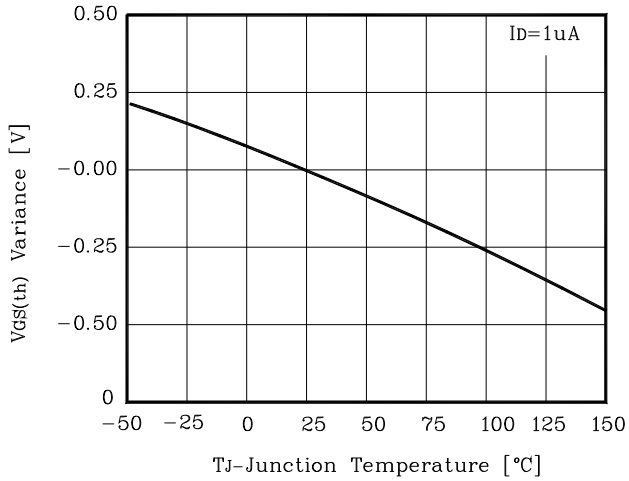
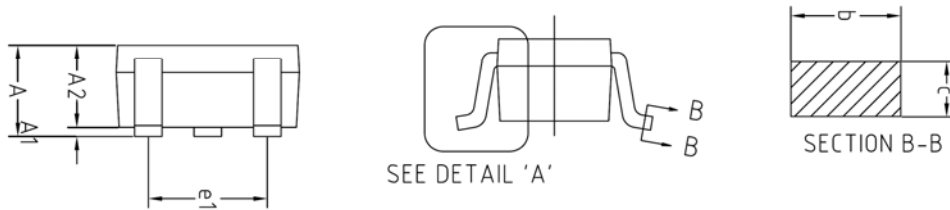
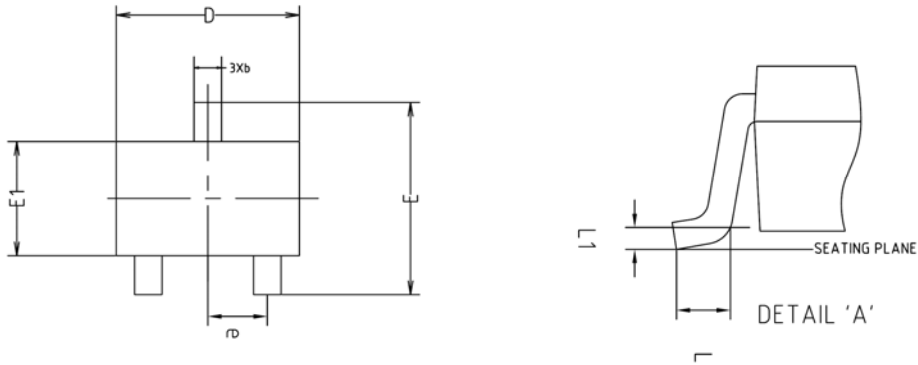


Fig. 9 $V_{GS(th)} - T_J$

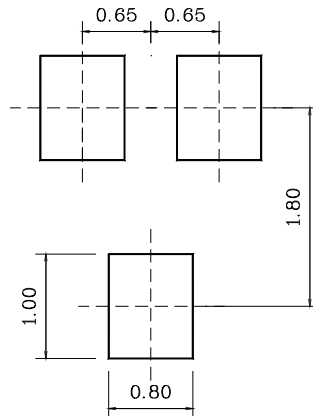


Package Outline Dimensions



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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