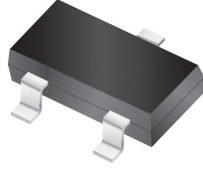
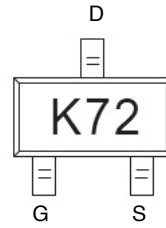


Main Product Characteristics

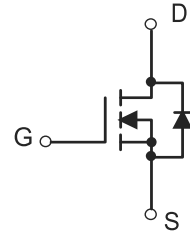
$V_{(BR)DSS}$	60V
$R_{DS(on)MAX}$	5Ω@10V
	7Ω@5V
I_D	115mA



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Marking and Pin Assignment



Schematic Diagram

Features and Benefits

- Advanced MOSFET process technology
- Ideal for DC-DC converter, power management in portable battery, computer, printer, cellular and general purpose applications
- Low on-resistance with low gate charge
- Fast switching and reverse body recovery



Description

The SSFK72T utilizes the latest processing techniques to achieve high cell density and low on-resistance. These features make this device extremely efficient and reliable for use in load switching, DC/DC converter and a wide variety of other applications.

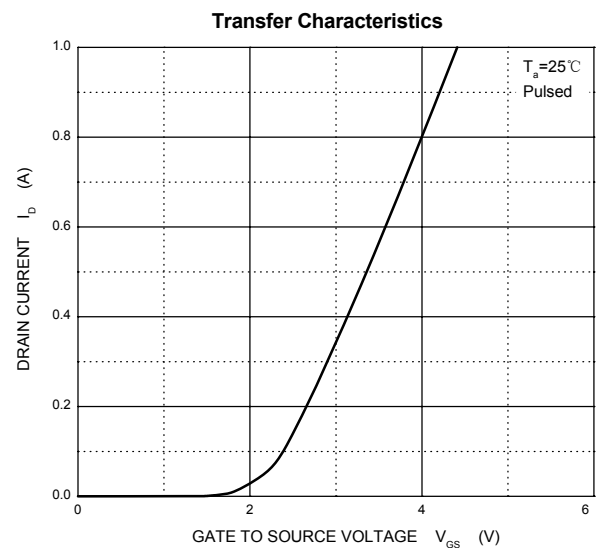
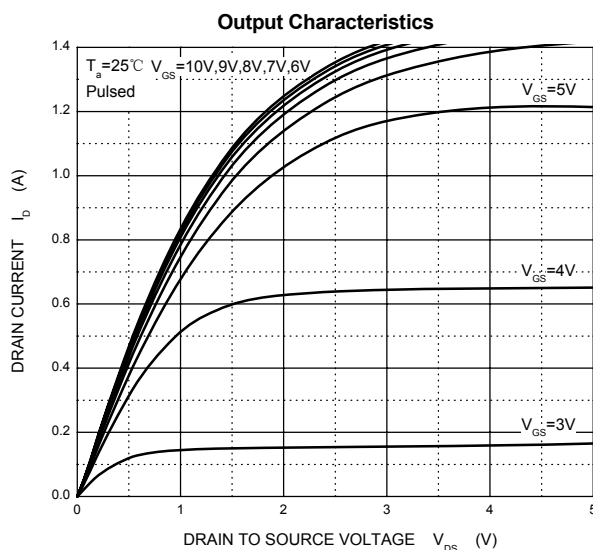
Absolute Maximum Ratings ($T_A=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	60	V
Gate-Source Voltage	V_{GS}	±20	
Continuous Drain Current	I_D	115	mA
Maximum Power Dissipation	P_D	150	mW
Thermal Resistance from Junction to Ambient($t \leq 5s$)	$R_{\theta JA}$	833	°C/W
Junction Temperature	T_J	150	°C
Storage Temperature	T_{STG}	-55 to +150	

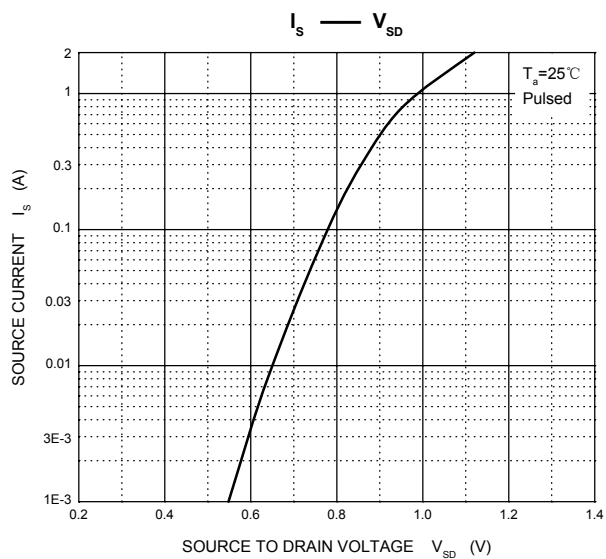
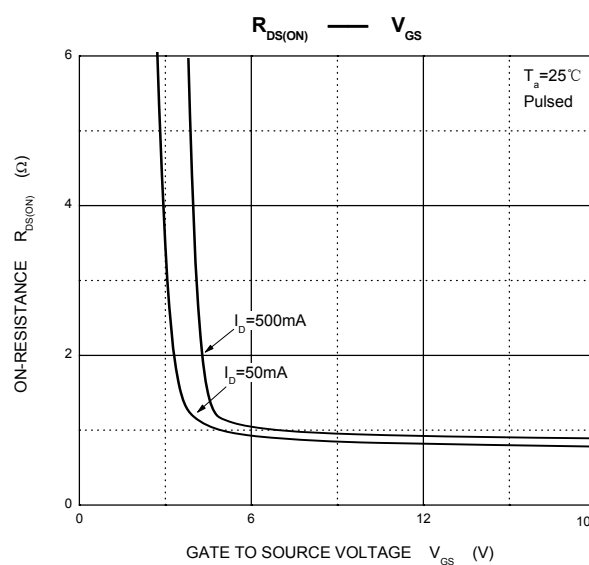
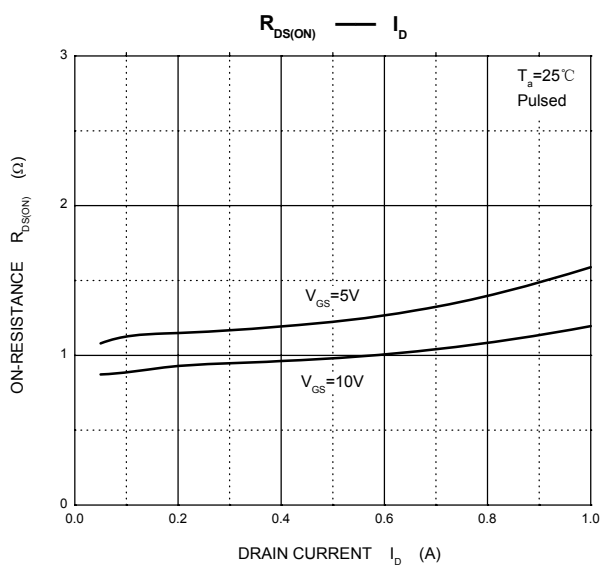
Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbo	Test conditions	Min	Max	Unit
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS}=0\text{ V}, I_D=250\ \mu\text{A}$	60	-	V
Gate-Threshold Voltage	$V_{th(GS)}$	$V_{DS}=V_{GS}, I_D=250\ \mu\text{A}$	1	2.5	
Gate-body Leakage	I_{GSS}	$V_{DS}=0\text{ V}, V_{GS}=\pm 20\text{ V}$	-	± 80	nA
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=60\text{ V}, V_{GS}=0\text{ V}$	-	80	nA
On-state Drain Current	$I_{D(ON)}$	$V_{GS}=10\text{ V}, V_{DS}=7\text{ V}$	500	-	mA
Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10\text{ V}, I_D=500\text{mA}$	-	5	Ω
		$V_{GS}=5\text{ V}, I_D=50\text{mA}$	-	7	
Forward Trans Conductance	g_{fs}	$V_{DS}=10\text{ V}, I_D=200\text{mA}$	80	-	ms
Drain-Source On-voltage	$V_{DS(on)}$	$V_{GS}=10\text{V}, I_D=500\text{mA}$	-	3.75	V
		$V_{GS}=5\text{V}, I_D=50\text{mA}$	-	0.375	V
Diode Forward Voltage	V_{SD}	$I_S=115\text{mA}, V_{GS}=0\text{ V}$	0.55	1.2	V
Input Capacitance	C_{iss}	$V_{DS}=25\text{V}, V_{GS}=0\text{V}, f=1\text{MHz}$	-	50	pF
Output Capacitance	C_{oss}		-	25	
Reverse Transfer Capacitance	C_{rss}		-	5	
Turn-on Time	$t_{d(on)}$	$V_{DD}=25\text{ V}, R_L=50\ \Omega$ $I_D=500\text{mA}, V_{GEN}=10\text{ V}$	-	20	ns
Turn-off Time	$t_{d(off)}$	$R_G=25\ \Omega$	-	40	

Typical Electrical and Thermal Characteristic Curves

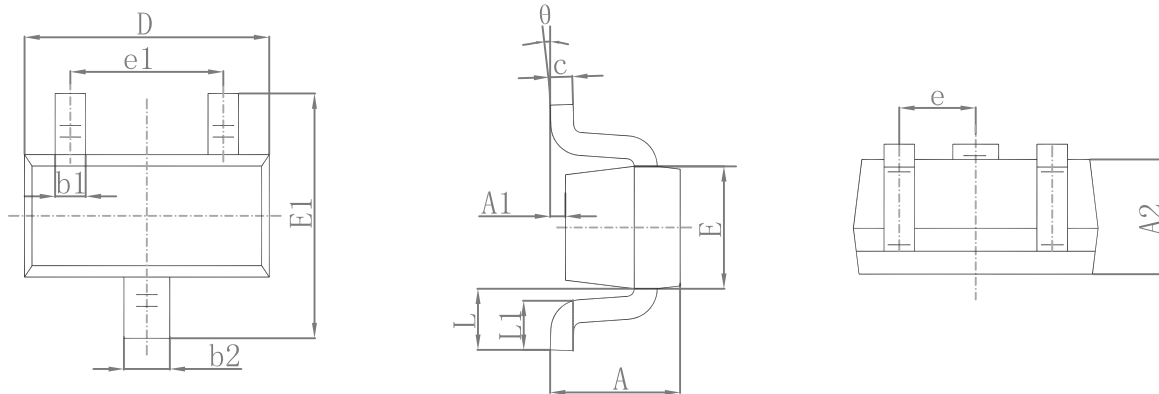


Typical Electrical and Thermal Characteristic Curves



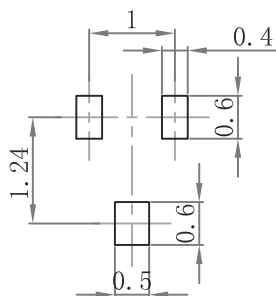
Package Outline Dimensions

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Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.700	0.900	0.028	0.035
A1	0.000	0.100	0.000	0.004
A2	0.700	0.800	0.028	0.031
b1	0.150	0.250	0.006	0.010
b2	0.250	0.350	0.010	0.014
c	0.100	0.200	0.004	0.008
D	1.500	1.700	0.059	0.067
E	0.700	0.900	0.028	0.035
E1	1.450	1.750	0.057	0.069
e	0.500 TYP.		0.020 TYP.	
e1	0.900	1.100	0.035	0.043
L	0.400 REF.		0.016 REF.	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.