Product Summary

$V_{(BR)DSS}$	$R_{DS(on)TYP}$	I_D
60V	1.1Ω@10V	230mA
	1.4Ω@4.5V	

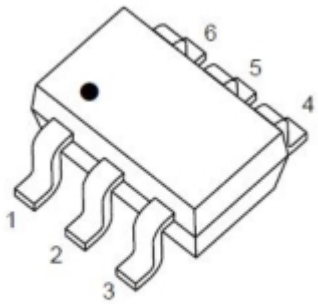
Feature

- High density cell design for Low $R_{DS(on)}$
- Voltage controlled small signal switch
- Rugged and reliable
- High saturation current capability

Application

- DC/DC Converter
- Load Switch for Portable Devices

Package



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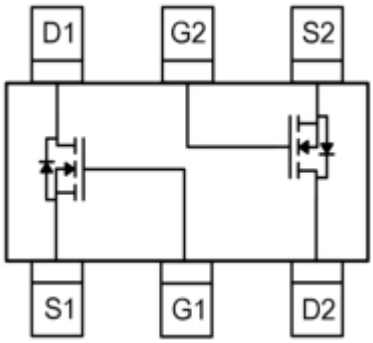
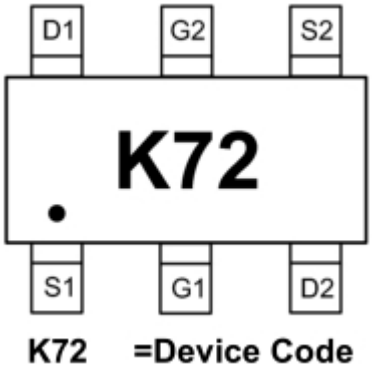
Circuit diagram



Marking



K72 =Device Code

Absolute maximum ratings

(T_a=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	60	V
Gate-Source Voltage	V_{GS}	±20	V
Continuous Drain Current	I_D	230	mA
Power Dissipation	P_D	150	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	833	℃/W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-55~ +150	℃

Electrical characteristics

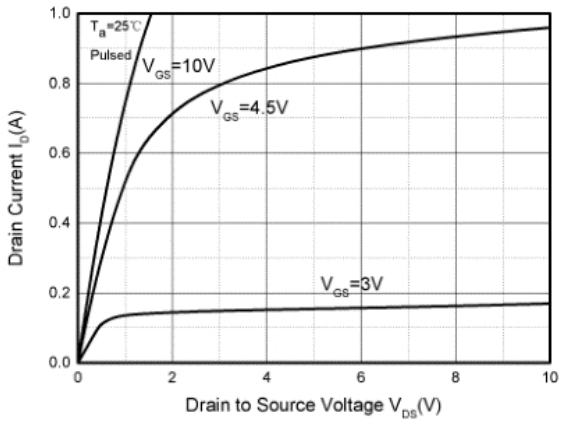
(T_A=25℃, unless otherwise noted)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Static Characteristics						
Drain-source breakdown voltage	$V_{(BR)DSS}$	V_{GS} = 0V, I_D =250μA	60			V
Zero gate voltage drain current	I_{DSS}	V_{DS} =48V,V_{GS} = 0V			1	uA
Gate-body leakage current	I_{GSS}	V_{GS} =±20V, V_{DS} = 0V			±1	uA
Gate threshold voltage	$V_{GS(th)}$	V_{DS} =V_{GS}, I_D =250μA	1	1.5	2.5	V
Drain-source on-resistance	$R_{DS(on)}$	V_{GS} =10V, I_D =500mA		1.1	3	Ω
		V_{GS} =4.5V, I_D =200mA		1.4	4	
Dynamic characteristics						
Input Capacitance[1)]	C_{iss}	V_{DS}=25V,V_{GS}=0V,f=1MHz			50	pF
Output Capacitance[1)]	C_{oss}				25	
Reverse Transfer Capacitance[1)]	C_{rss}				5	
Switching Characteristics						
Turn-on delay time[1)]	$t_{d(on)}$	V_{DD}=25 V, R_L=50Ω I_D=500mA,V_{GEN}=10V, R_G=25Ω			20	ns
Turn-off delay time[1)]	$t_{d(off)}$				40	
Source-Drain Diode Characteristics						
Diode Forward voltage	V_{SD}	V_{GS} =0V, I_S=115mA			1.2	V

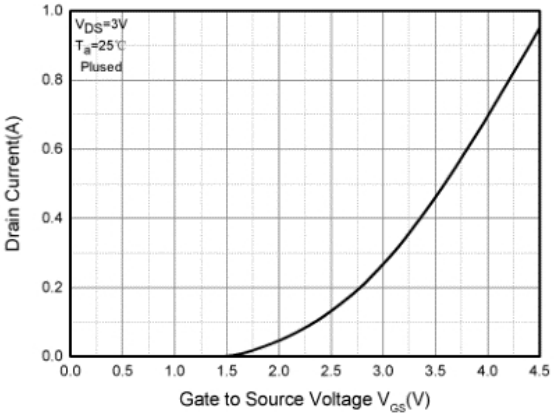
Notes:

1. These parameters have no way to verify.

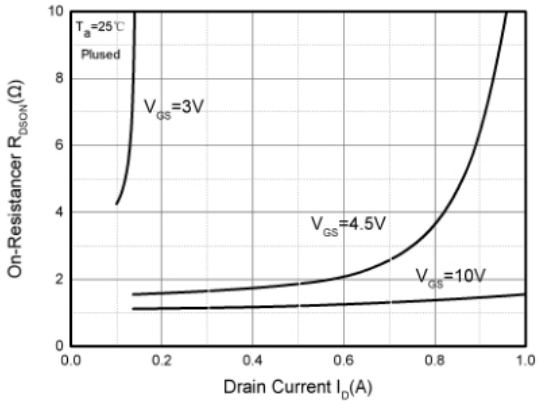
Typical Characteristics



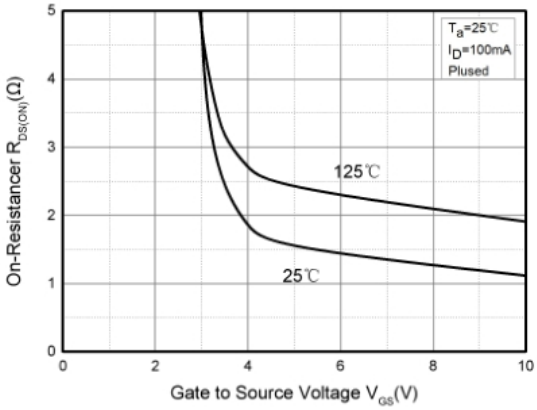
Output Characteristics



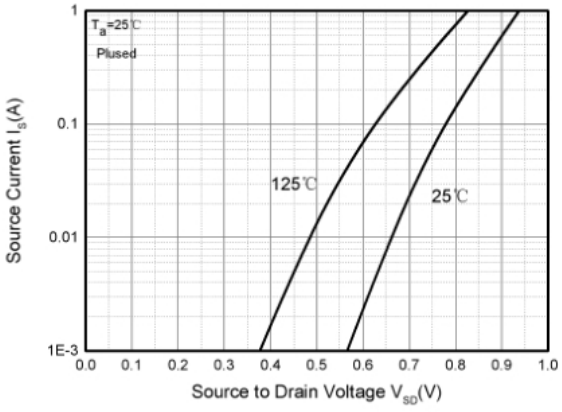
Transfer Characteristics



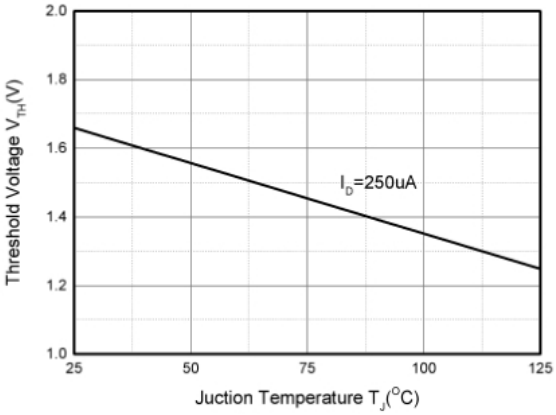
On-Resistance vs. Drain current



On-Resistance vs. Gate to Source Voltage

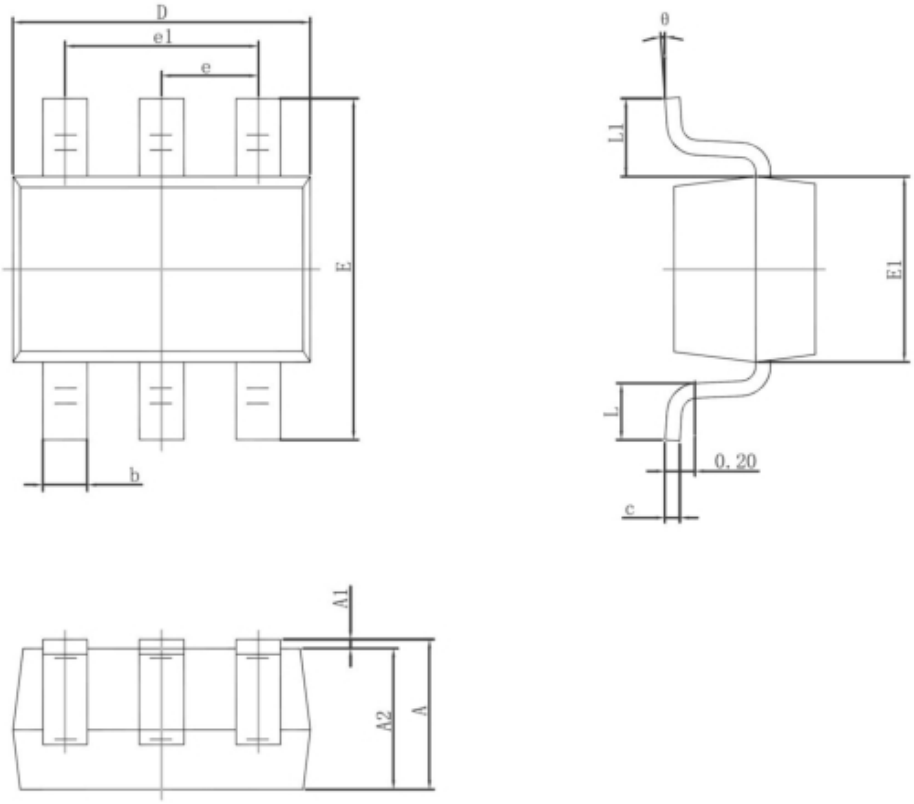


Source Current vs. Source to Drain Voltage



Threshold voltage vs. Junction temperature

SOT-363 Package Information



Symbol	Dimensions In Millimeters	
	Min.	Max.
A	0.90	1.10
A1	0.00	0.10
A2	0.90	1.00
b	0.15	0.35
c	0.10	0.15
D	2.00	2.20
E1	1.15	1.35
E	2.15	2.40
e	0.65 TYP.	
e1	1.20	1.40
L	0.26	0.46