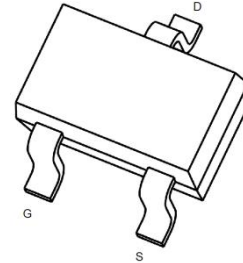


Feature

- Super high density cell design for extremely low $R_{DS(ON)}$
- Exceptional on-resistance and maximum DC current capability
- Capable doing Cu wire bonding
- $R_{DS(ON)}=3\Omega(\text{Typ.}) @ V_{GS}=10V$
- $R_{DS(ON)}=4\Omega(\text{Typ.}) @ V_{GS}=4.5V$
- $R_{DS(ON)}=4.5\Omega(\text{Typ.}) @ V_{GS}=3V$

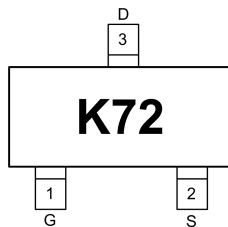
SOT-323



Application

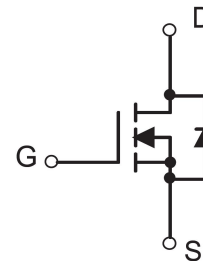
- Power Management in Note book
- Portable Equipment
- Battery Powered System

Marking



K72 =Device Code

Circuit diagram



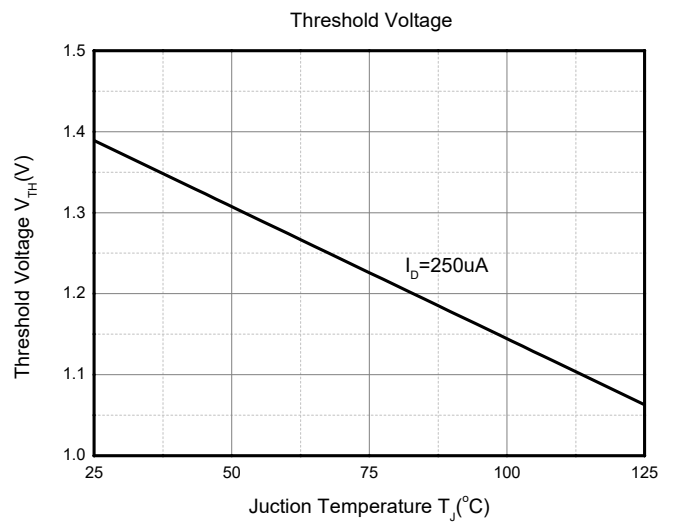
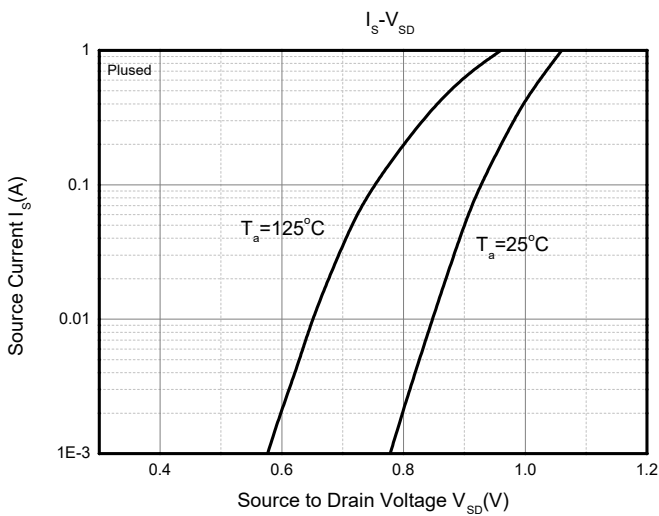
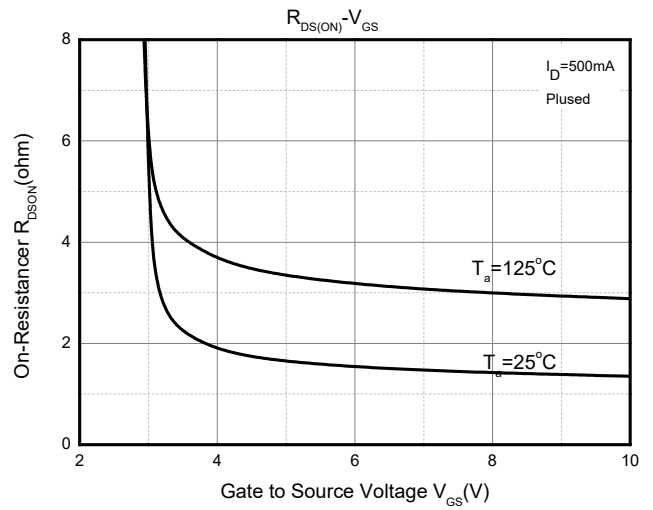
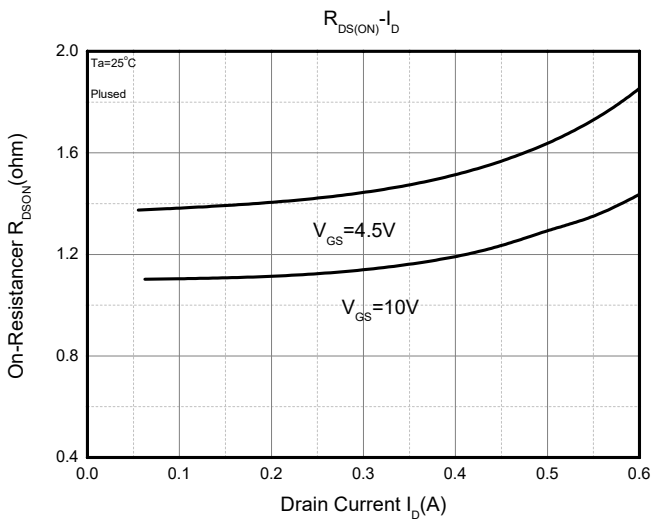
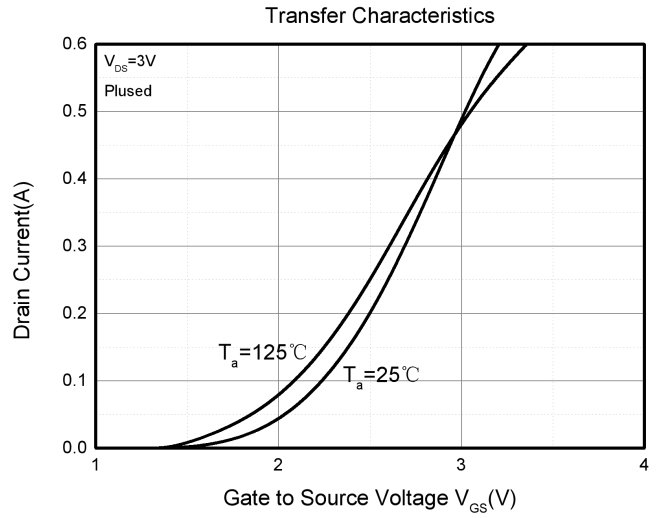
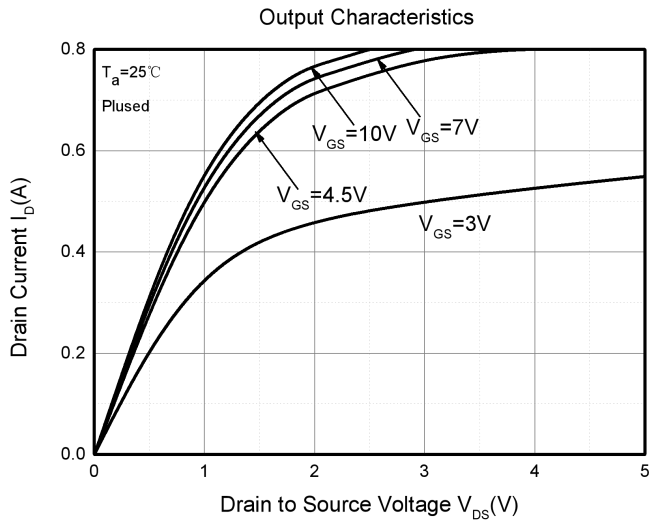
Absolute maximum ratings ($T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	60	V
Gate-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current	I_D	340	mA
Plused Drain Current ¹	I_{DM}	800	mA
Power Dissipation	P_D	0.2	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	625	$^\circ\text{C/W}$
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55~ +150	$^\circ\text{C}$

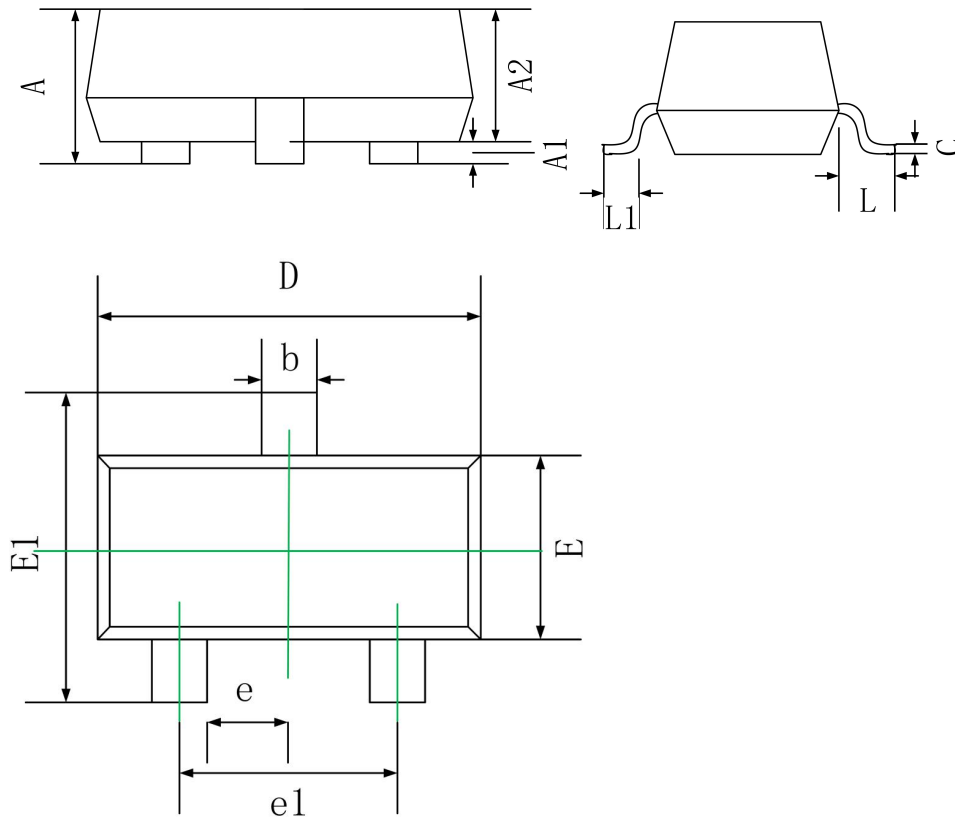
Electrical characteristics (T_A=25 °C, unless otherwise noted)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Static Characteristics						
Drain-Source Breakdown Voltage	BV _{DSS}	V _{GS} =0V, I _D =250μA	60			V
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} , I _D =250μA	1	1.5	2.5	V
Gate-Body Leakage	I _{GSS}	V _{DS} =0V, V _{GS} =±20V			±5	μA
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =60V, V _{GS} =0V			1	μA
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	
		V _{GS} =3V, I _D =10mA			4.5	
Diode Forward Voltage	V _{SD}	I _S =200mA, V _{GS} =0V		0.82	1.3	V
Dynamic characteristics						
Total Gate Charge	Q _g	V _{DS} =15V, V _{GS} =4.5V, I _D =200mA		1.5		nC
Gate-Source Charge	Q _{gs}			1.9		
Gate-Drain Charge	Q _{gd}			0.4		
Input Capacitance	C _{iss}	V _{DS} =25V, V _{GS} =0V, f=1MHz		28		pF
Output Capacitance	C _{oss}			9		
Reverse Transfer Capacitance	C _{rss}			2		
Switching Characteristics						
Turn-On Delay Time	td(on)	V _{DD} =30V, R _L =150Ω I _D =200mA, V _{GEN} =10V, R _G =10Ω		8.5		ns
Turn-On Rise Time	tr			6		
Turn-Off Delay Time	td(off)			31.8		
Turn-Off Fall Time	tf			15.5		

Typical Characteristics



SOT-323 Package Information



Symbol	Dimensions In Millimeters	
	Min.	Max.
A	0.90	1.15
A1	0.00	0.10
A2	0.90	1.00
b	0.30	0.50
c	0.10	0.15
D	2.00	2.20
E	1.15	1.35
E1	2.15	2.40
e	0.65 Typ.	
e1	1.20	1.40
L	0.525 Ref.	
L1	0.26	0.46