

Product Summary

$V_{(BR)DSS}$	$R_{DS(on)TYP}$	I_D
60V	1.8Ω@10V	0.34A
	2.1Ω@4.5V	

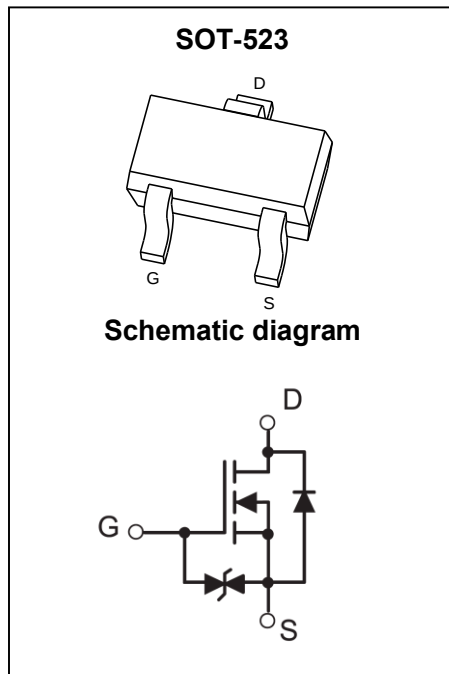
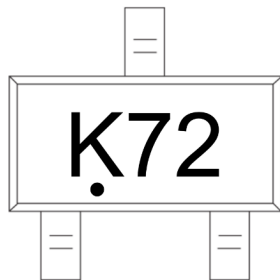
Feature

- Surface Mount Package
- High Density Cell Design for Extremely Low RDS(ON)
- Voltage Controlled Small Signal Switch
- Rugged and Reliable
- ESD Protcet

Application

- Small Servo Motor Controls
- Power MOSFET Gate Drivers
- Switching Application

MARKING:



ABSOLUTE MAXIMUM RATINGS (Ta = 25°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 ^{1,2}	I_D	0.34	A
Pulsed Drain Current (tp=10μs)	I_{DM}	1.36	A
Power Dissipation	P_D	0.15	W
Thermal Resistance from Junction to Ambient ^{1,2}	$R_{θJA}$	833	°C/W
Junction Temperature	T_J	150	°C
Storage Temperature	T_{STG}	-55~ +150	°C

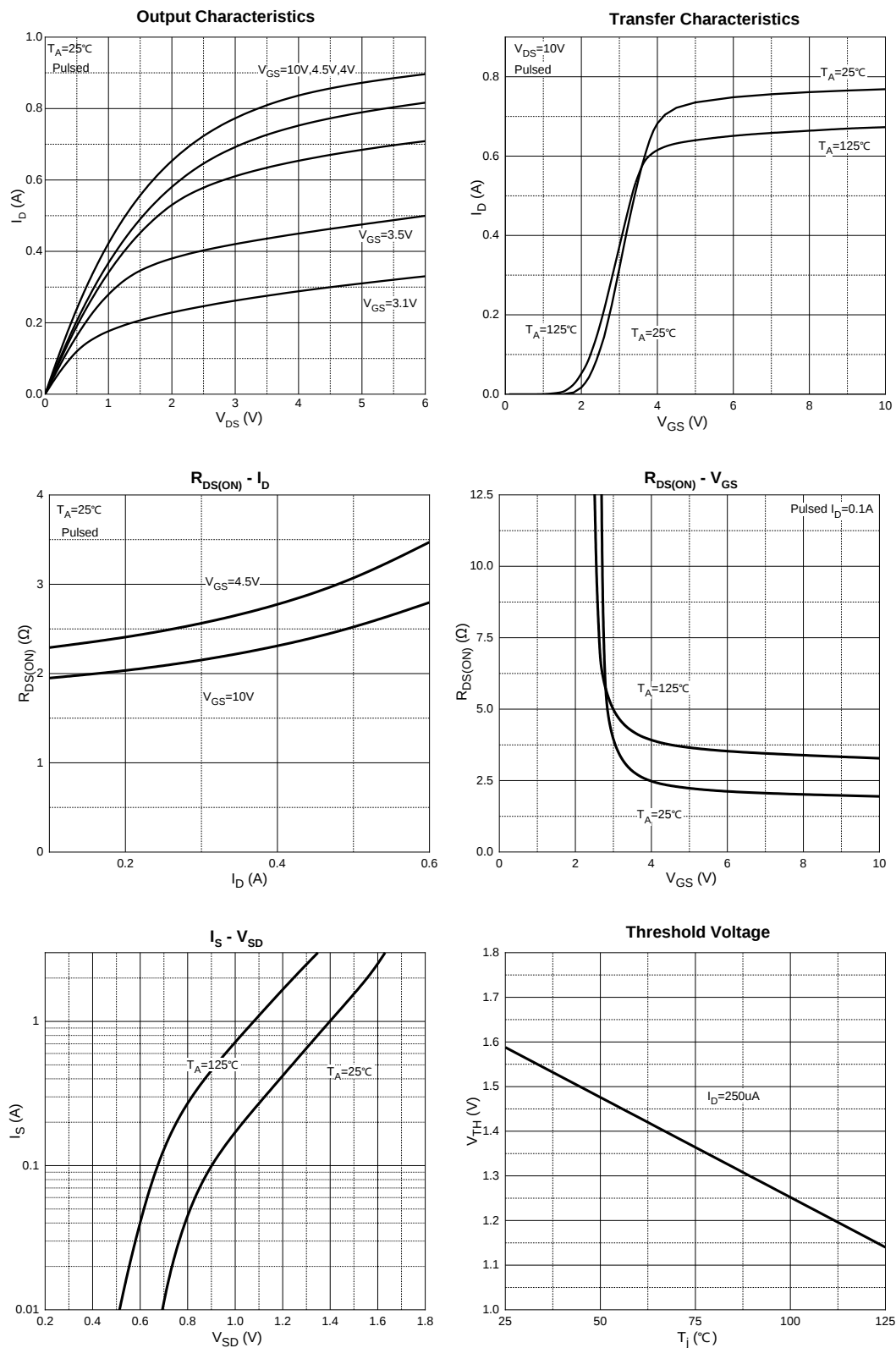
MOSFET ELECTRICAL CHARACTERISTICS($T_a = 25^\circ\text{C}$ unless otherwise noted)

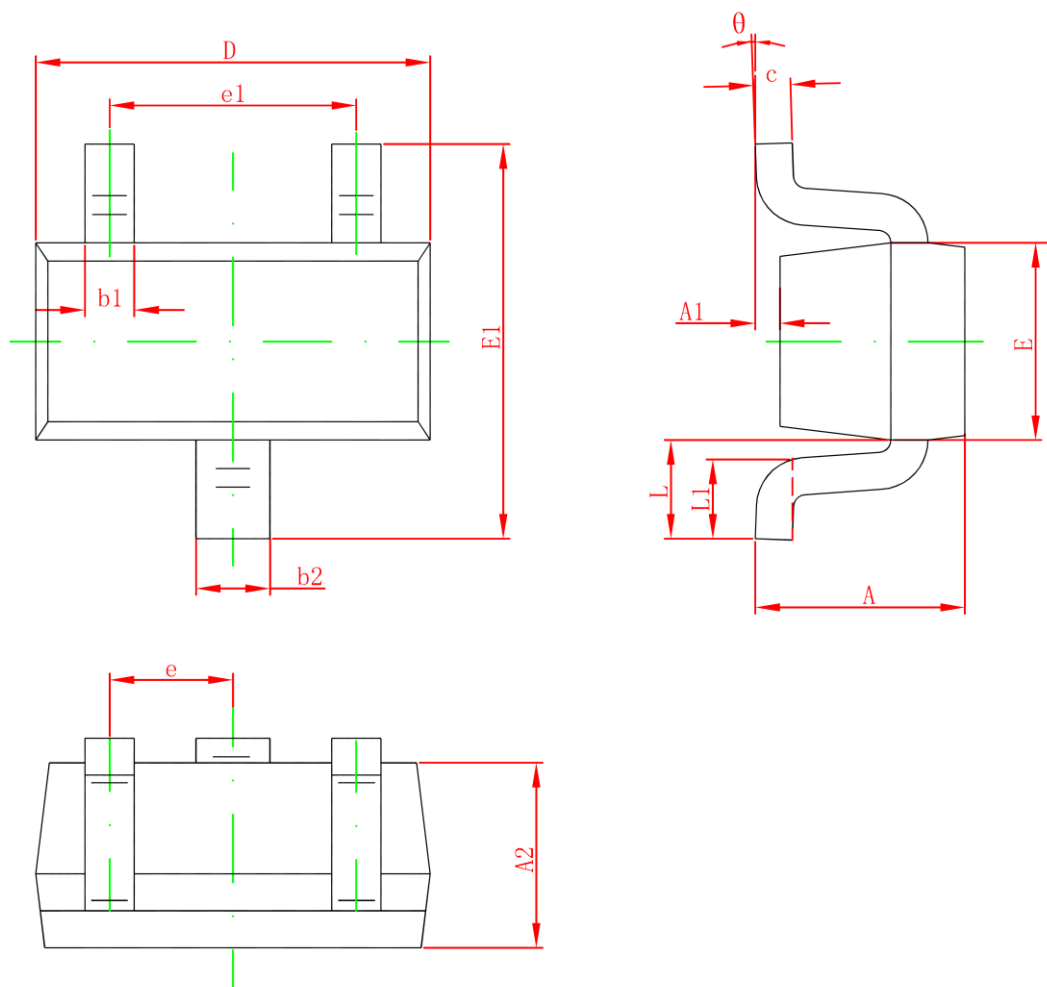
Parameter	Symbol	Test Condition	Min	Type	Max	Unit
Off Characteristics						
Drain-source breakdown voltage	$V_{(BR)DSS}$	$V_{GS} = 0V, I_D = 250\mu A$	60			V
Zero gate voltage drain current	I_{DSS}	$V_{DS} = 48V, V_{GS} = 0V$			1	μA
Gate-body leakage current	I_{GSS}	$V_{GS} = \pm 20V, V_{DS} = 0V$			± 5	μA
On Characteristics ³						
Gate threshold voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = 250\mu A$	1.0	1.5	2.5	V
Drain-source on-resistance	$R_{DS(on)}$	$V_{GS} = 10V, I_D = 0.3A$		1.8	3.5	Ω
		$V_{GS} = 4.5V, I_D = 0.2A$		2.1	4.0	
Forward tranconductance	g_{FS}	$V_{DS} = 10V, I_D = 0.2A$	80			mS
Dynamic Characteristics						
Input Capacitance	C_{iss}	$V_{DS} = 30V, V_{GS} = 0V, f = 1MHz$		17.6		pF
Output Capacitance	C_{oss}			4.4		
Reverse Transfer Capacitance	C_{rss}			1.2		
Switchig Characteristics						
Turn-on Delay Time	$t_{d(on)}$	$V_{DD} = 30V, V_{GS} = 10V,$ $R_L = 100\Omega, R_G = 3\Omega$		3.8		ns
Turn-on Rise Time	t_r			2.9		
Turn-off Delay Ttime	$t_{d(off)}$			14		
Turn-off Fall Time	t_f			8		
Total Gate Charge	Q_g	$V_{DS} = 30V, I_D = 0.3A, V_{GS} = 10V$		1.6		nC
Gate-Source Charge	Q_{gs}			0.2		
Gate-Drain Charge	Q_{gd}			0.8		
Diode Characteristics						
Diode forward voltage ³	V_{SD}	$I_S = 0.3A, V_{GS} = 0V$			1.2	V

Notes :

1. $R_{\theta JA}$ is measured with the device mounted on 1 in² FR4 board with 1oz. single side copper, in a still air environment with $T_A = 25^\circ\text{C}$.
2. $R_{\theta JA}$ is measured in the steady state
3. Pulse test : Pulse width $\leq 380\mu s$, duty cycle $\leq 2\%$.

Typical Characteristics



SOT-523 Package Information


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	0.900	1.100	0.035	0.043
e1	0.500TYP		0.020TYP	
L	0.400REF		0.016REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

单击下面可查看定价，库存，交付和生命周期等信息

[>>GP\(格瑞宝\)](#)