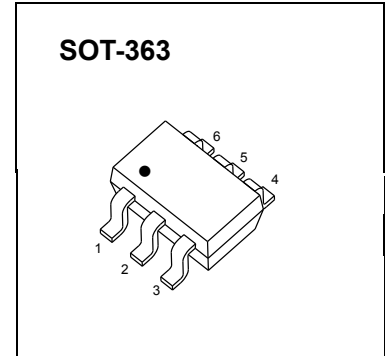


Dual N-channel MOSFET

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



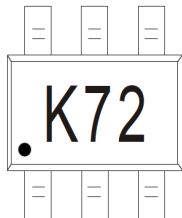
FEATURE

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

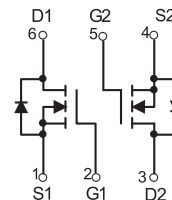
APPLICATION

- Load Switch for Portable Devices
- DC/DC Converter

MARKING



Equivalent Circuit



MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{DS}	Drain-Source voltage	60	V
V_{GS}	Gate-Source voltage	±20	V
I_D	Drain Current	115	mA
P_D	Power Dissipation	150	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	833	$^{\circ}\text{C}/\text{W}$
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55-150	$^{\circ}\text{C}$

T_a=25 °C unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Drain-source breakdown voltage	V _{(BR)DSS}	V _{GS} =0 V, I _D =250 μA	60			V
Gate-threshold voltage *	V _{th(GS)}	V _{DS} =V _{GS} , I _D =250 μA	1	1.6	2.5	
Gate-body leakage	I _{GSS}	V _{DS} =0 V, V _{GS} =±20 V			±80	nA
Zero gate voltage drain current	I _{DSS}	V _{DS} =60 V, V _{GS} =0 V			80	nA
Drain-source on-resistance *	R _{DS(on)}	V _{GS} =10 V, I _D =500mA		1.1	5	Ω
		V _{GS} =5 V, I _D =50mA		1.2	7	
Forward transconductance *	g _{fs}	V _{DS} =10 V, I _D =200mA	80			ms
Drain-source on-voltage *	V _{DS(on)}	V _{GS} =10V, I _D =500mA			3.75	V
		V _{GS} =5V, I _D =50mA			0.375	V
Diode forward voltage	V _{SD}	I _S =115mA, V _{GS} =0 V	0.55		1.2	V
Input capacitance **	C _{iss}	V _{DS} =25V, V _{GS} =0V, f=1MHz			50	pF
Output capacitance **	C _{oss}				25	
Reverse transfer capacitance **	C _{rss}				5	

SWITCHING TIME

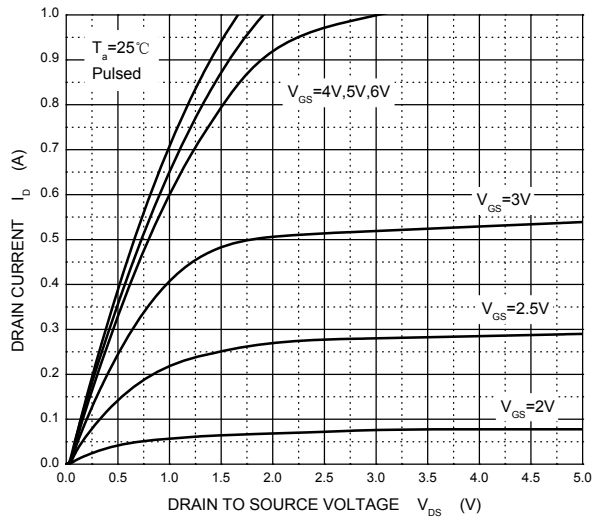
Turn-on time **	t _{d(on)}	V _{DD} =25 V, R _L =50Ω			20	ns
Turn-off time **	t _{d(off)}	I _D =500mA, V _{GEN} =10V, G=25 Ω			40	

* Pulse Test: Pulse width ≤300μs, duty cycle≤2%.

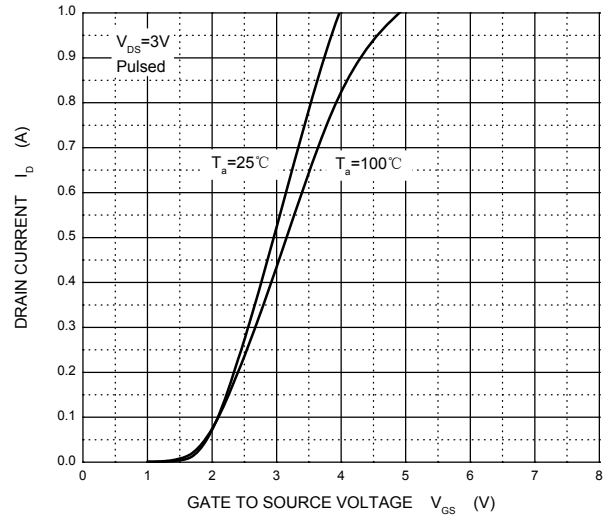
** These parameters have no way to verify.

Typical Characteristics

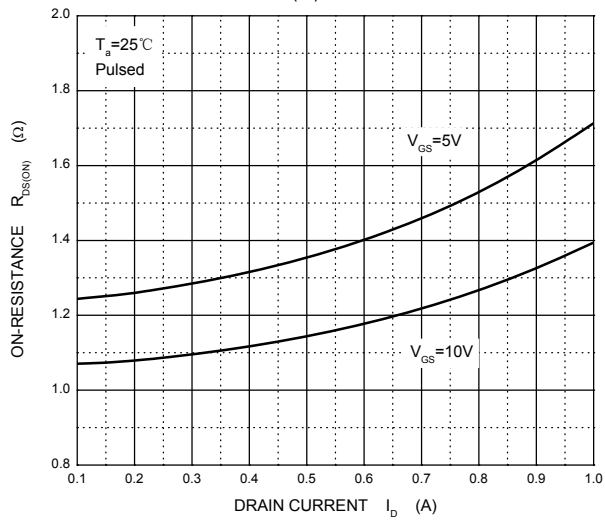
Output Characteristics



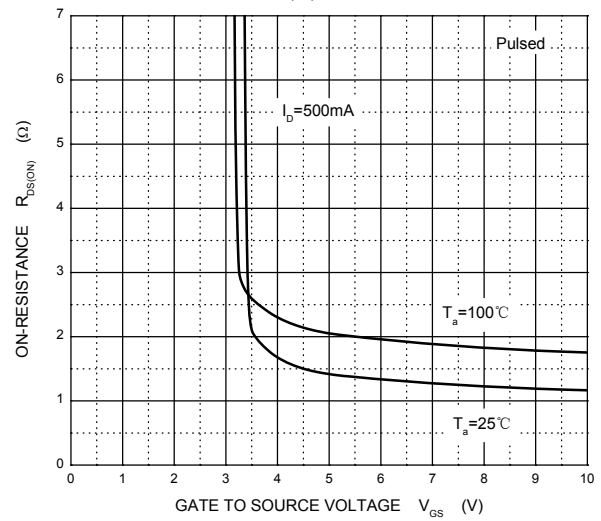
Transfer Characteristics



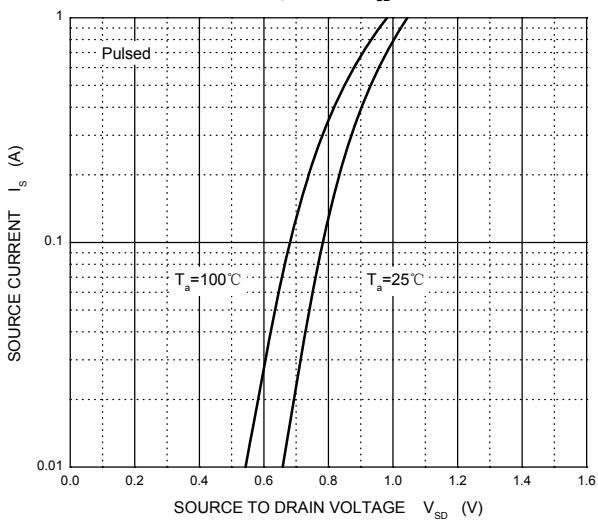
$R_{DS(ON)}$ — I_D



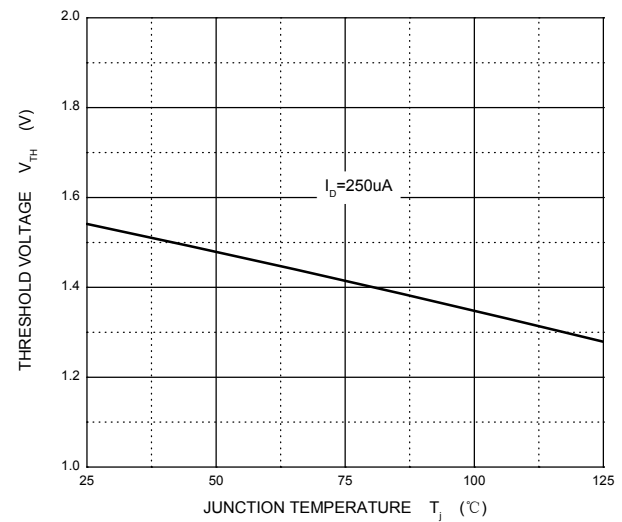
$R_{DS(ON)}$ — V_{GS}



I_S — V_{SD}

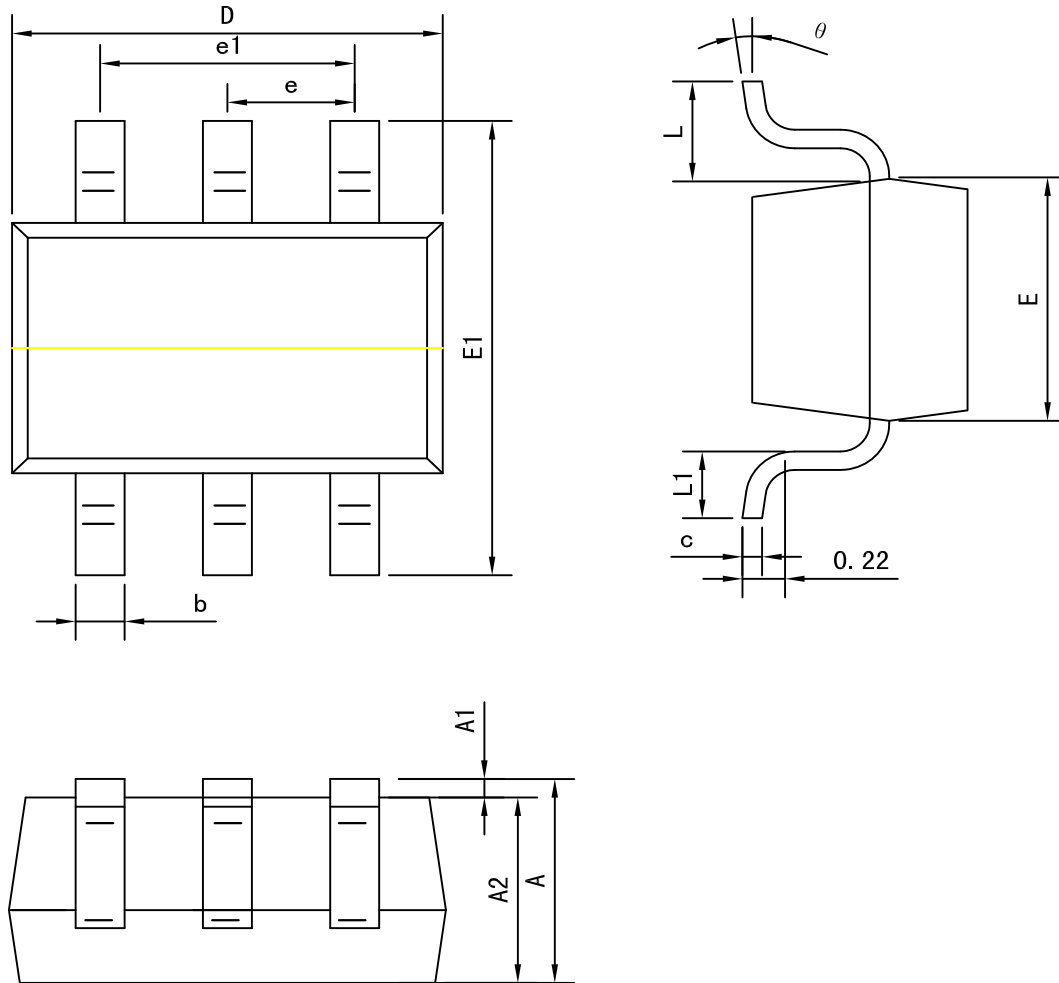


Threshold Voltage



Package outline dimensions

SOT-363



Symbol	Dimension in Millimeters	
	Min	Max
A	0.900	1.100
A1	0.000	0.100
A2	0.900	1.000
b	0.150	0.350
c	0.080	0.150
D	2.000	2.200
E	1.150	1.350
E1	2.150	2.450
e	0.650 TYP	
e1	1.200	1.400
L	0.525 REF	
L1	0.260	0.460
θ	0°	8°