



Product Summary

$V_{(BR)DSS}$	$R_{DS(on)MAX}$	I_D
60V	3Ω@10V	340mA
	4Ω@4.5V	

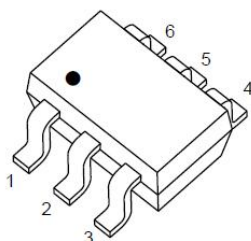
Feature

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

Application

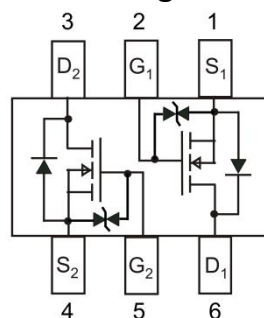
- DC/DC Converter
- Load Switch for Portable Devices

Package:

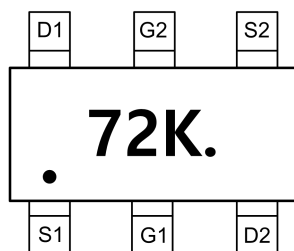


SOT-363

Circuit diagram



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	I_D	340	mA
Power Dissipation	P_D	150	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	833	°C/W
Junction Temperature	T_J	150	°C
Storage Temperature	T_{STG}	-55~ +150	°C

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

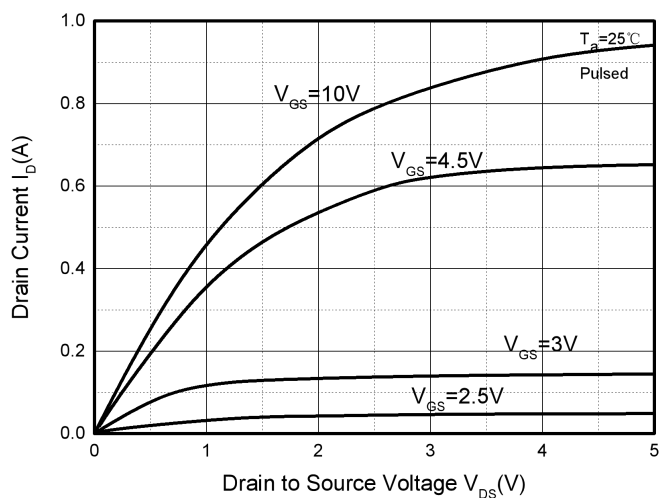
Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Static Characteristics						
Drain-source breakdown voltage	V _{(BR)DSS}	V _{GS} = 0V, I _D =250μA	60			V
Zero gate voltage drain current	I _{DSS}	V _{DS} =60V, V _{GS} = 0V			100	nA
Gate-body leakage current	I _{GSS}	V _{GS} =±20V, V _{DS} = 0V			±10	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 =100mA		1.6	3	Ω
		V _{GS} =4.5V, I _D =50mA		2.3	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						
Source-Drain Diode characteristics						
Diode Forward voltage	V _{SD}	V _{GS} =0V, I _S =115mA	0.6	0.8	1.0	V

Notes:

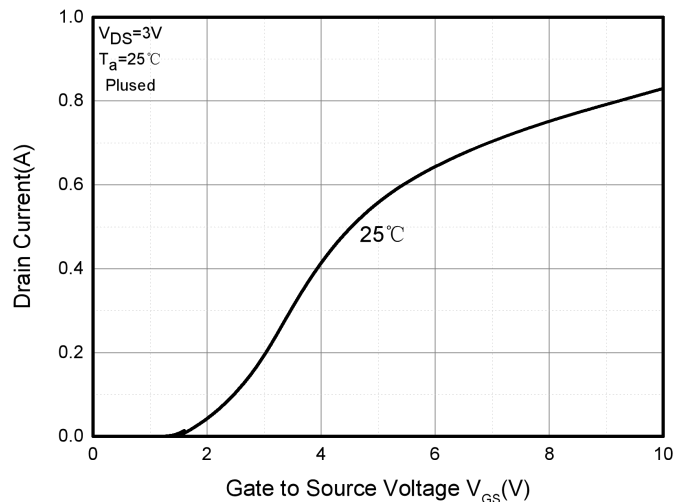
1) These parameters have no way to verify.



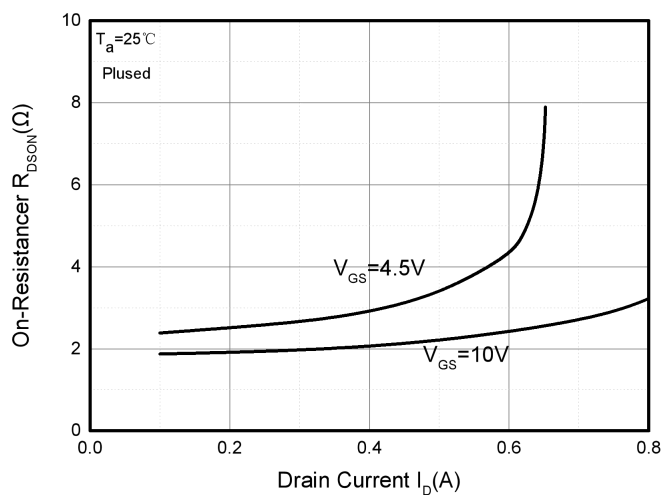
Typical Characteristics



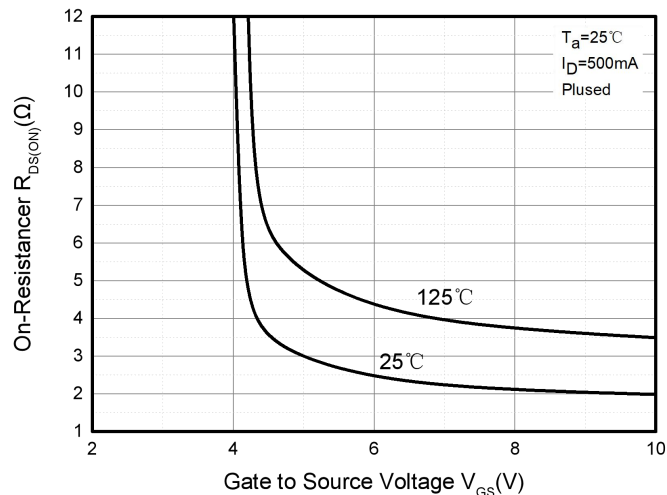
Output Characteristics



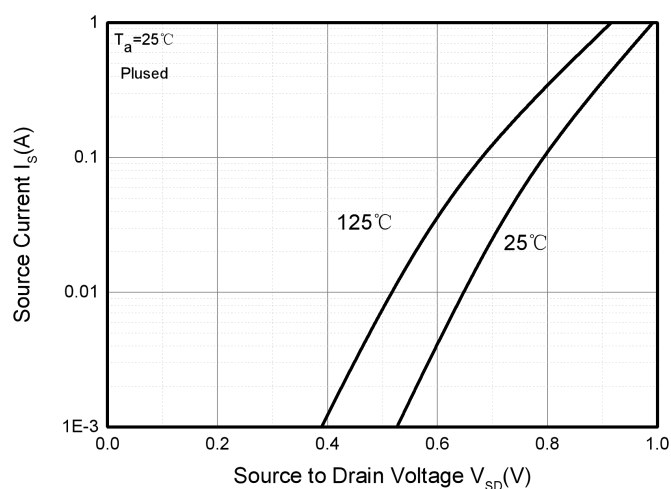
Transfer Characteristics



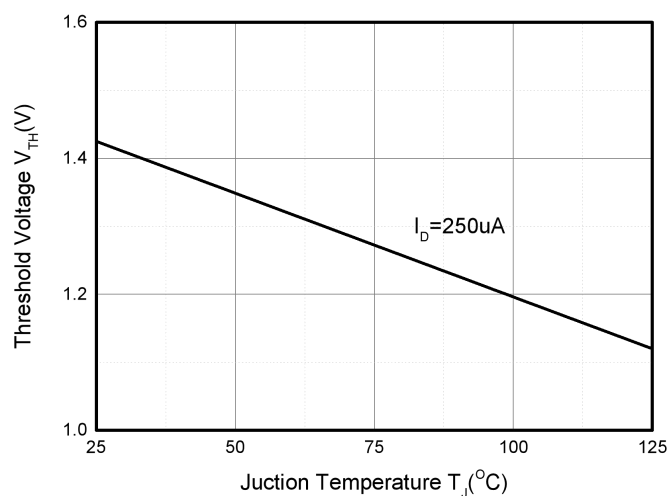
On-Resistance vs. Drain current



On-Resistance vs. Gate to Source Voltage



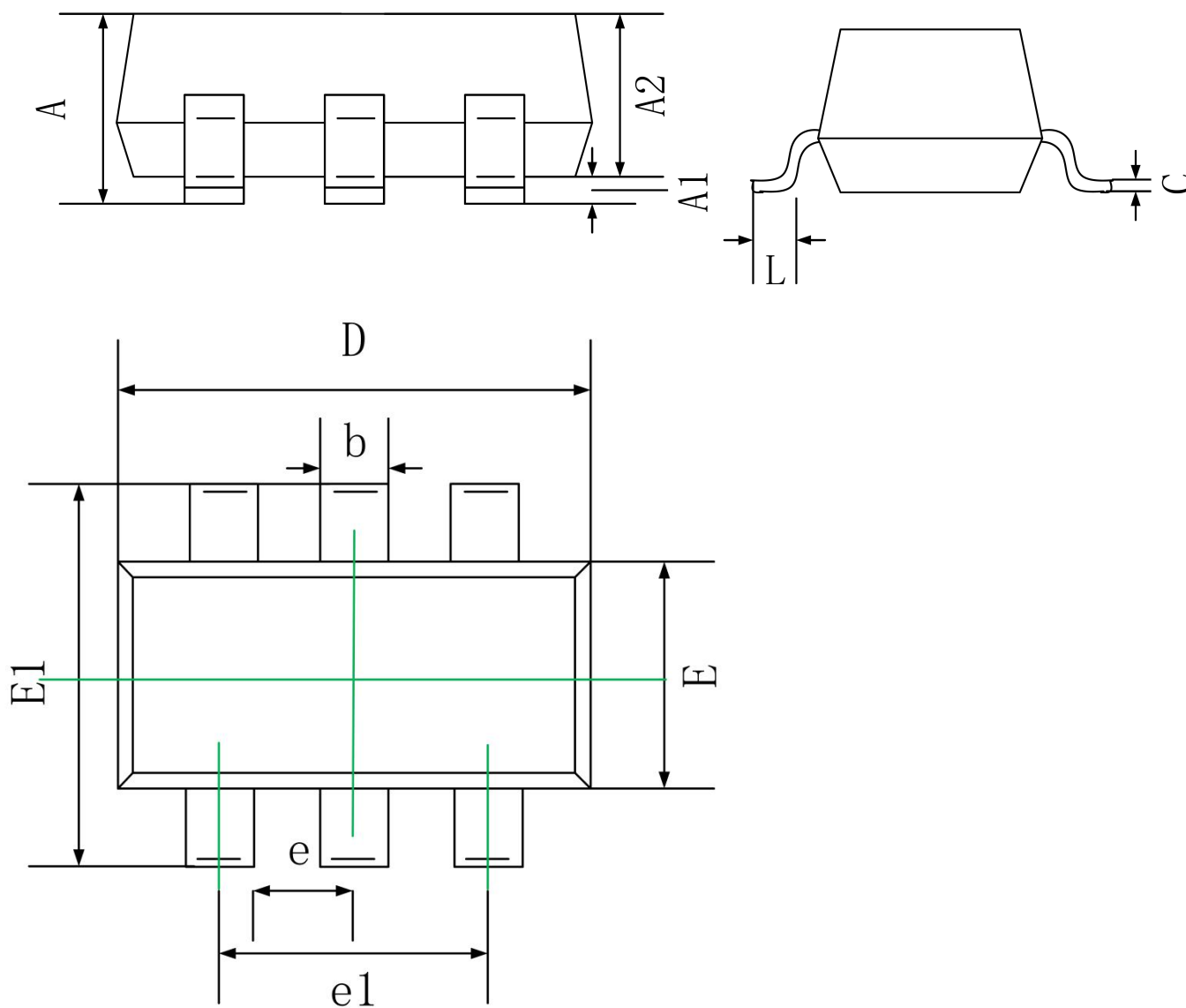
Source Current vs. Source to Drain Voltage



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
E	1.15	1.35
E1	2.15	2.40
e	0.65 TYP.	
e1	1.20	1.40
L	0.26	0.46