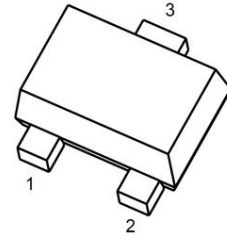


Product Summary

$V_{(BR)DSS}$	$R_{DS(on)TYP}$	I_D
60V	1.8Ω@10V	300mA
	2.0Ω@4.5V	



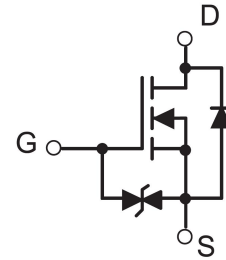
SOT-723

Feature

- High power and current handing capability
- Surface mount package
- ESD protected 2KV

Application

- Battery Switch
- DC/DC Converter



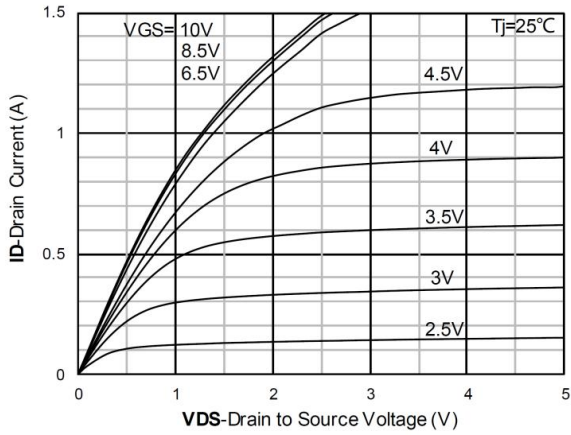
Absolute maximum ratings (Ta=25°C, unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V _{DSS}	60	V
Gate-Source Voltage	V _{GSS}	±20	V
Continuous Drain Current	I _D	300	mA
Pulse Drain Current Tested	I _{DM}	1200	mA
Power Dissipation	P _D	150	mW
Thermal Resistance Junction-to-Ambient	R _{θJA}	833	°C/W
Storage Temperature Range	T _{STG}	-55 to 150	°C
Operating Junction Temperature Range	T _J	-55 to 150	°C

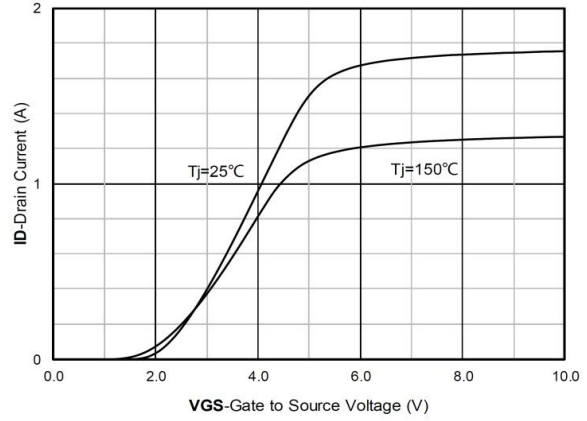
Electrical characteristics (Ta=25°C, unless otherwise noted)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Static Characteristics						
Drain-Source Breakdown Voltage	BV _{DSS}	V _{GS} =0V , I _D =250μA	60	-	-	V
Drain-Source Leakage Current	I _{DSS}	V _{DS} =48V , V _{GS} =0V	-	-	1	uA
Gate-Source 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
Static Drain-Source On-Resistance	R _{DS(ON)}	V _{GS} =10V, I _D =200mA	-	1.8	2.2	Ω
		V _{GS} =4.5V, I _D =200mA	-	2.0	3.0	
Dynamic characteristics						
Input Capacitance	C _{iss}	V _{DS} =25V , V _{GS} =0V , f=1MHz	-	28	-	pF
Output Capacitance	C _{oss}		-	10	-	
Reverse Transfer Capacitance	C _{rss}		-	5	-	
Total Gate Charge	Q _g	V _{DS} =10V , V _{GS} =4.5V , I _D =300mA	-	1.7	-	nC
Gate-Source Charge	Q _{gs}		-	0.35	-	
Gate-Drain Charge	Q _{gd}		-	0.5	-	
Switching Characteristics						
Turn-On Delay Time	t _{d(on)}	V _{DD} =30V V _{GS} =10V , R _G =25Ω , I _D =300mA	-	3	-	nS
Turn-On Rise Time	t _r		-	17	-	
Turn-Off Delay Time	t _{d(off)}		-	10	-	
Turn-Off Fall Time	t _f		-	21	-	
Source-Drain Diode characteristics						
Diode Forward Voltage	V _{SD}	V _{GS} =0V , I _S =1A , T _J =25°C	-	-	1.2	V

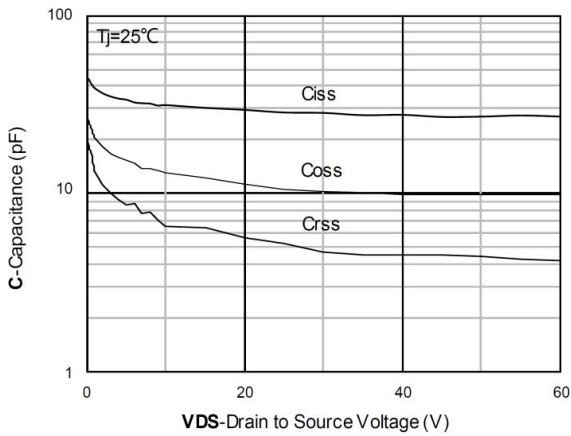
Typical Characteristics



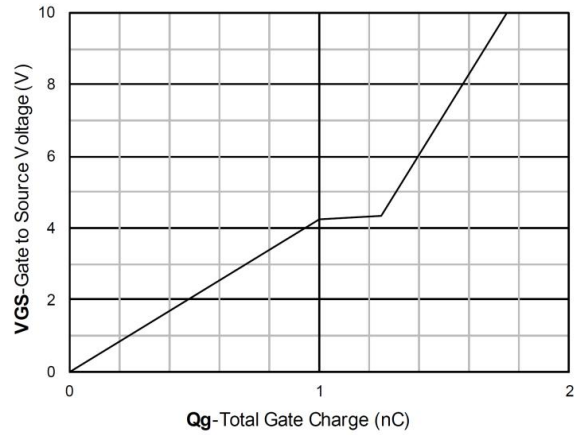
Output Characteristics



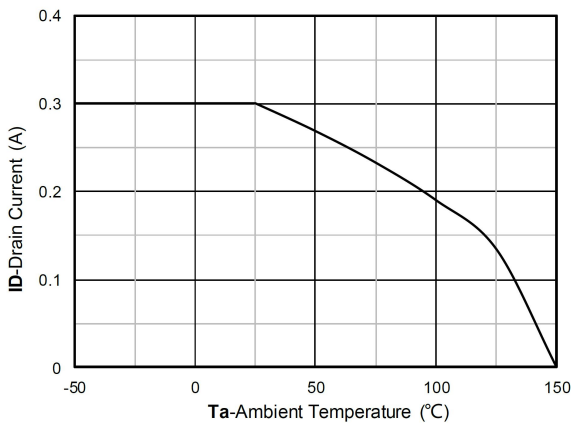
Transfer Characteristics



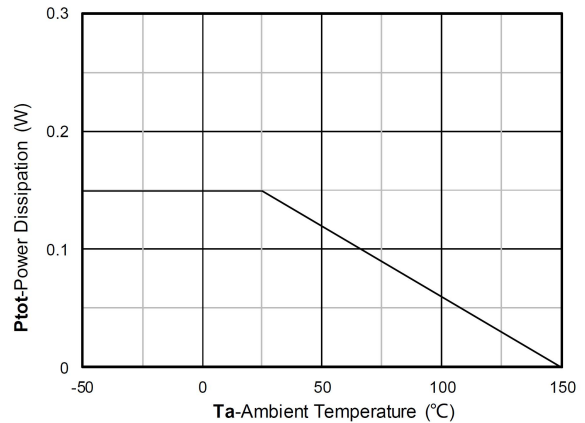
Capacitance Characteristics



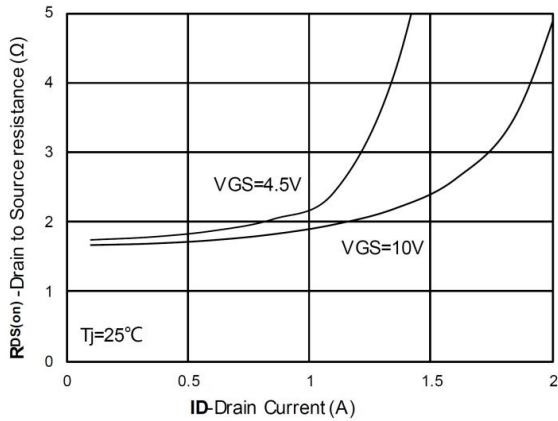
Gate Charge



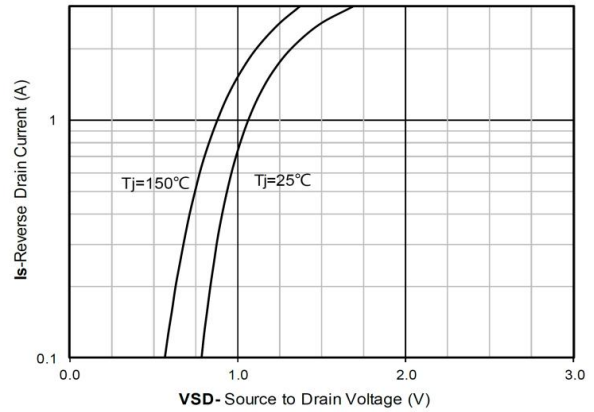
Current dissipation



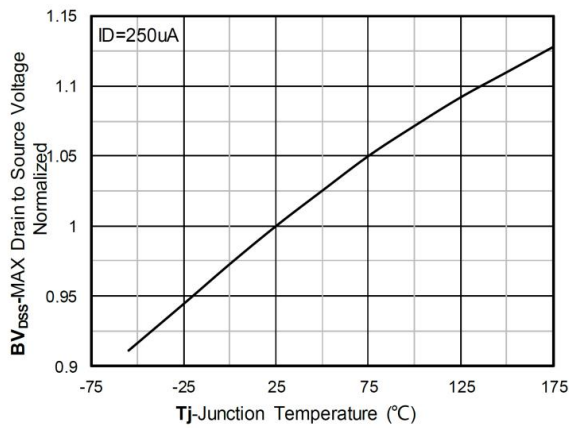
Power dissipation



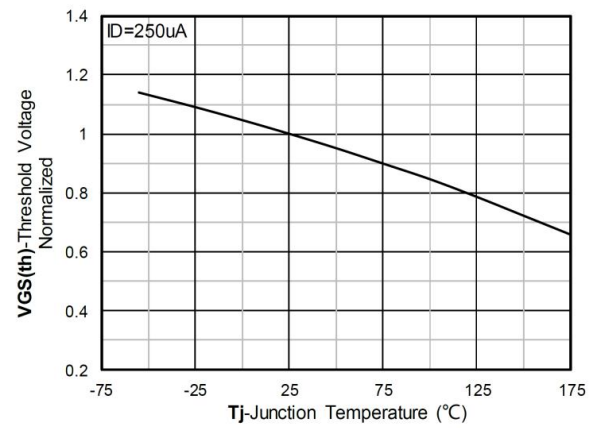
$R_{DS(on)}$ VS Drain Current



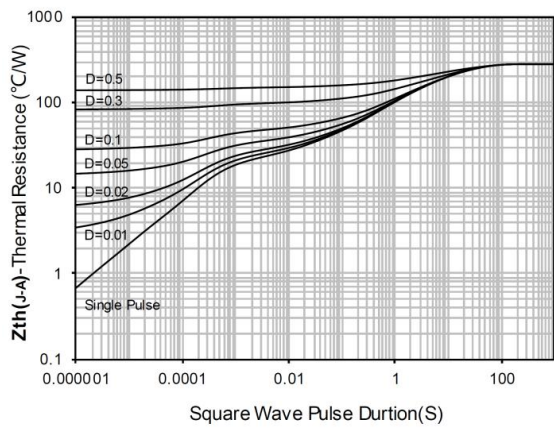
Forward characteristics of reverse diode



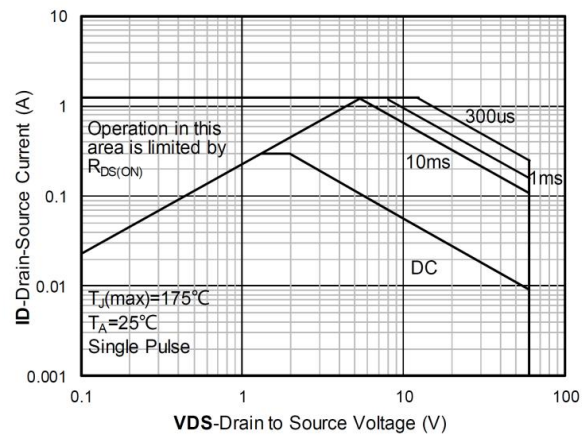
Normalized breakdown voltage



Normalized Threshold voltage

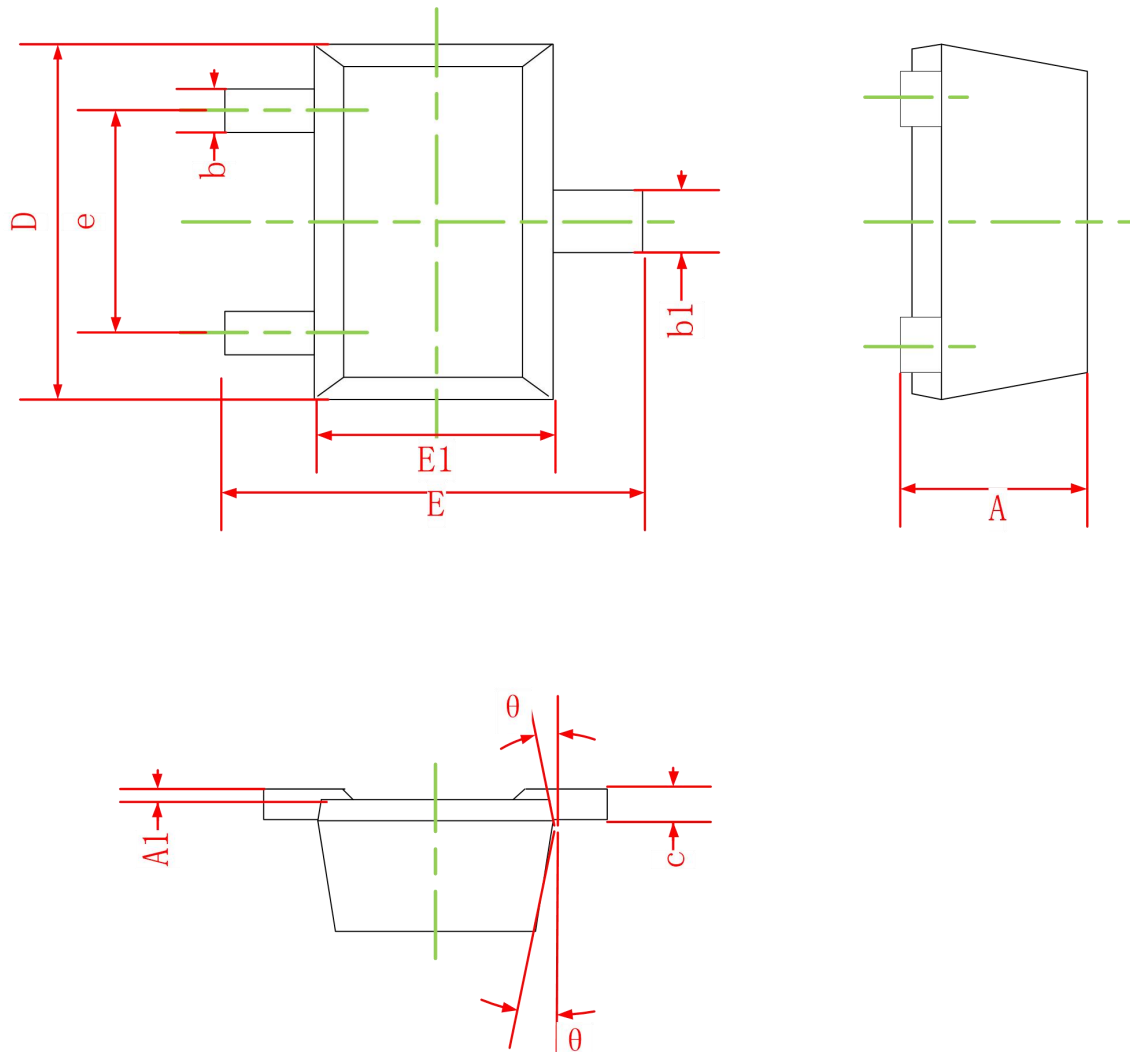


Maximum Transient Thermal Impedance



Safe Operation Area

SOT-723 Package Information



Symbol	Dimensions In Millimeters	
	Min.	Max.
A	0.430	0.500
A1	0.000	0.050
b	0.170	0.270
b1	0.270	0.370
c	0.080	0.150
D	1.150	1.250
E	1.150	1.250
E1	0.750	0.850
e	0.800TYP.	
θ	7° REF.	