

Product Summary

$V_{(BR)DSS}$	$R_{DS(on)TYP}$	I_D
100V	4Ω@10V	170mA
	4.3Ω@4.5V	

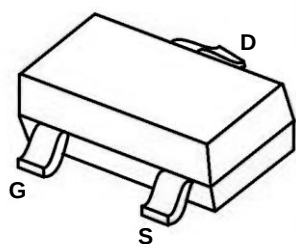
Feature

- Advanced trench cell design
- High speed switch

Application

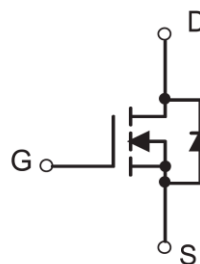
- Portable appliances
- Load switch appliances

Package

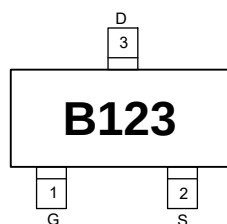


SOT-23

Circuit diagram



Marking



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

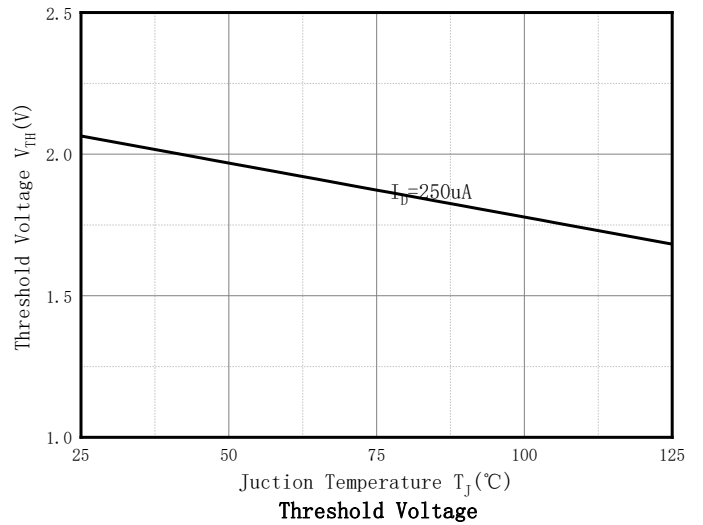
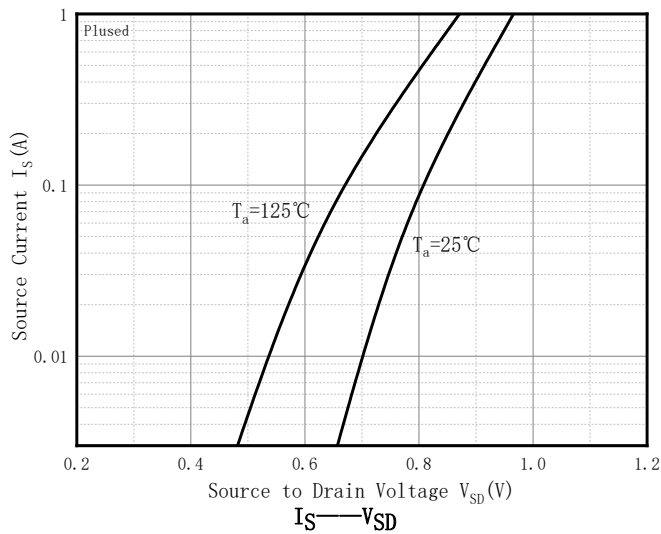
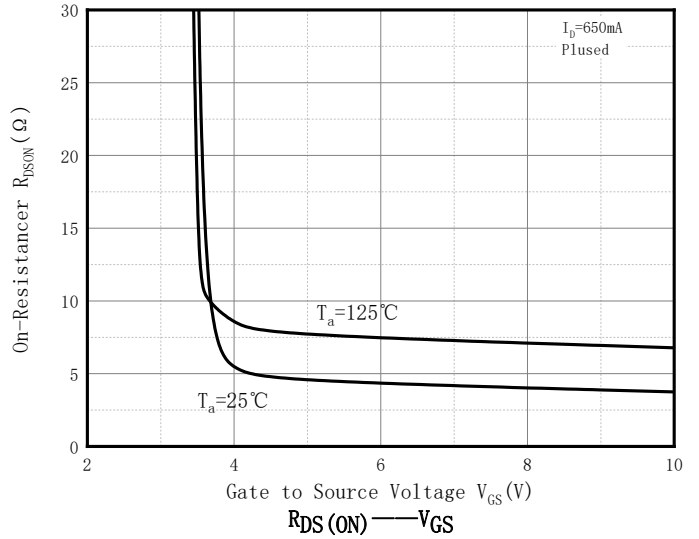
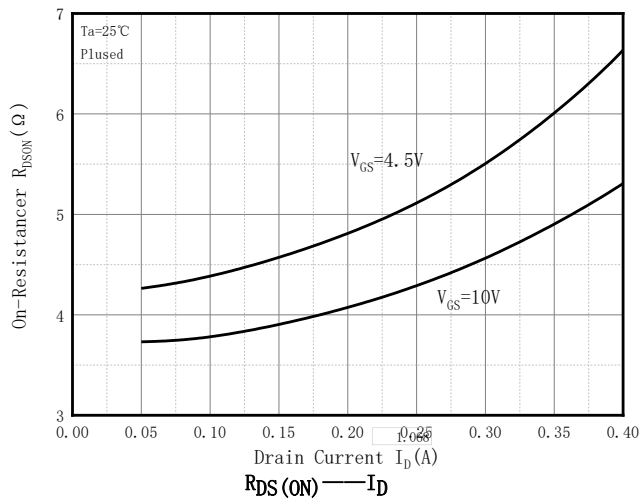
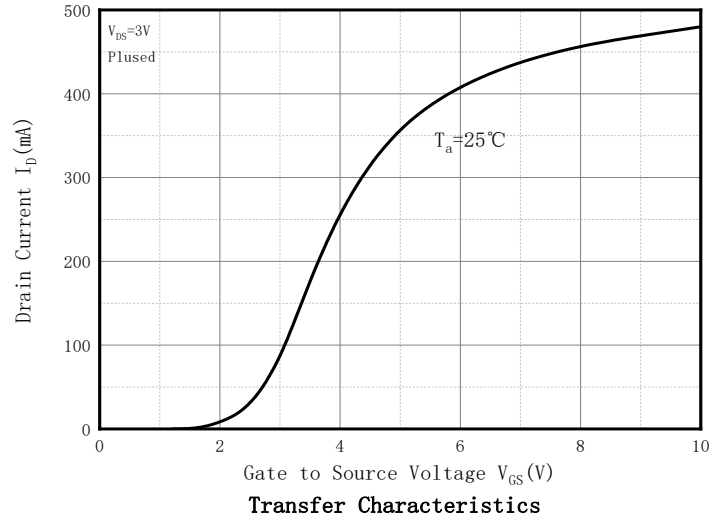
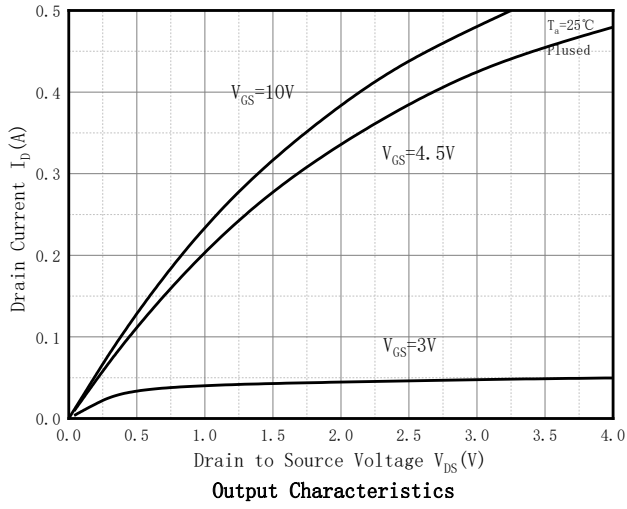
Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	100	V
Gate-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current	I_D	170	mA
Power Dissipation	P_D	0.35	W
Junction Temperature	T_J	150	°C
Storage Temperature	T_{STG}	-55~ +150	°C

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Static Characteristics						
Drain-Source Breakdown Voltage	BV _{DSS}	V _{GS} =0V, I _D =250μA	100			V
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} , I _D =250μA	1.3	2	2.5	V
Gate-Body Leakage	I _{GSS}	V _{DS} =0V, V _{GS} =±20V			±10	μA
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =80V, V _{GS} =0V			1	μA
Drain-Source On-Resistance	R _{DS(ON)}	V _{GS} =10V, I _D =250mA		4	6	Ω
		V _{GS} =4.5V, I _D =200mA		4.3	9	
Dynamic characteristics						
Total Gate Charge	Q _g	V _{DS} =10V, V _{GS} =10V, I _D =220mA			2	nC
Gate-Source Charge	Q _{gs}				0.25	
Gate-Drain Charge	Q _{gd}				0.4	
Input Capacitance	C _{iss}	V _{DS} =25V, V _{GS} =0V, f=1MHz			60	pF
Output Capacitance	C _{oss}				15	
Reverse Transfer Capacitance	C _{rss}				6	
Switching Characteristics						
Turn-On Delay Time	t _{d(on)}	V _{DD} =30V, V _{GS} =10V, I _D =280mA, R _G =50Ω			8	ns
Turn-On Rise Time	t _r				8	
Turn-Off Delay Time	t _{d(off)}				13	
Turn-Off Fall Time	t _f				16	
Source-Drain Diode characteristics						
Diode Forward Voltage	V _{SD}	I _S =400mA, V _{GS} =0V			1.3	V

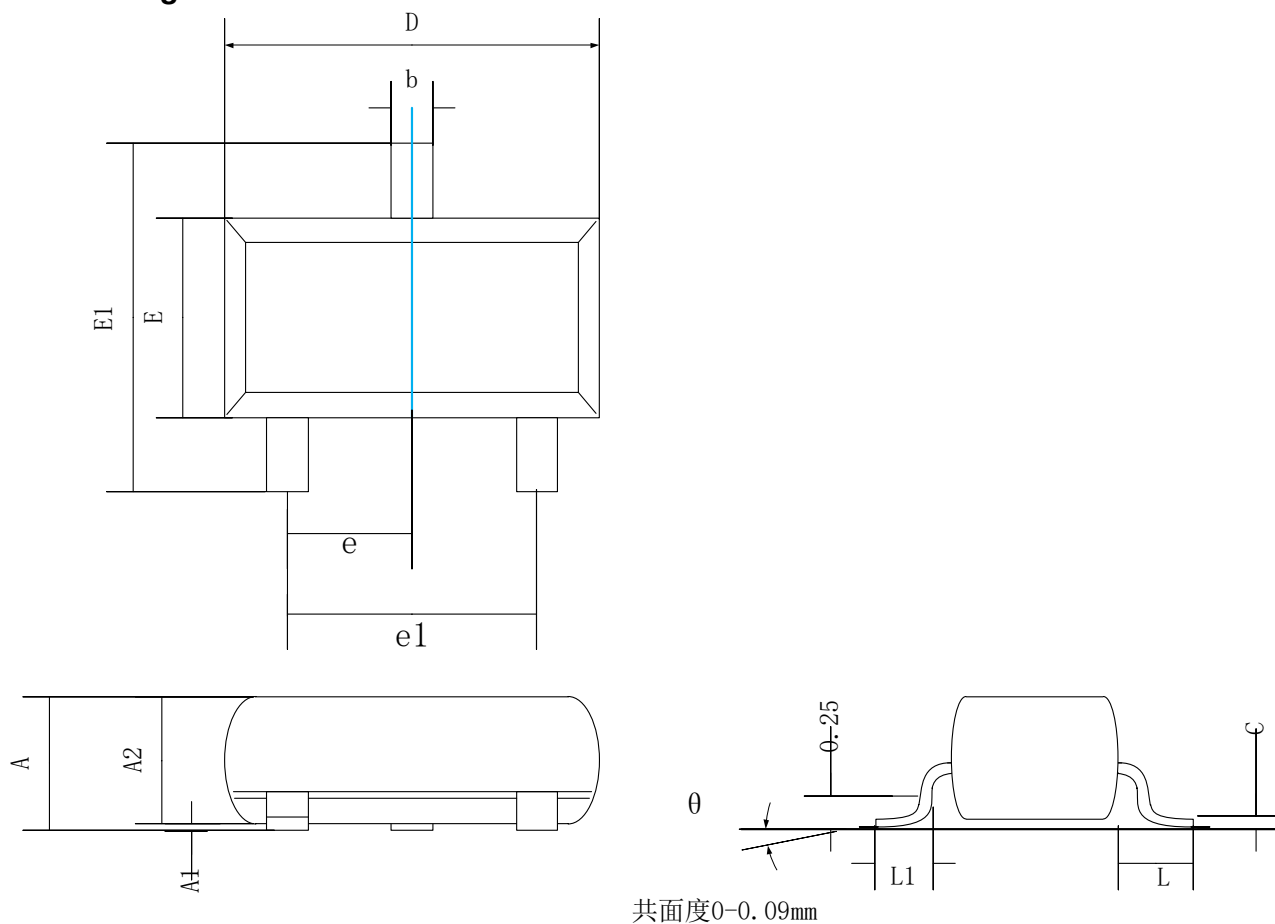


Typical Characteristics





SOT-23 Package Information



Symbol	Dimensions In Millimeters	
	Min.	Max.
A	0.90	1.15
A1	0.00	0.10
A2	0.90	1.05
b	0.30	0.50
c	0.08	0.15
D	2.80	3.00
E	1.20	1.40
E1	2.25	2.55
e	0.95 REF.	
e1	1.80	2.00
L	0.55 REF.	
L1	0.30	0.50
θ	0°	8°