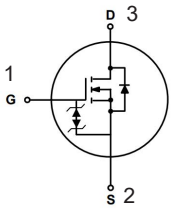
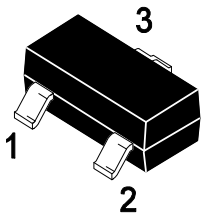
BSS123W

N-Channel Enhancement Mode MOSFET

Feature





- Super High dense cell design for extremely low $R_{DS(ON)}$.
- Reliable and Rugged.
- Low Threshold Voltage (1.5V—2.5 V)Make it Ideal for Low Voltage Applications.
- ESD protected.
- SOT-323 for Surface Mount Package.

Applications

- Power Management in DC/DC Converters
- Portable and Battery-powered Products.

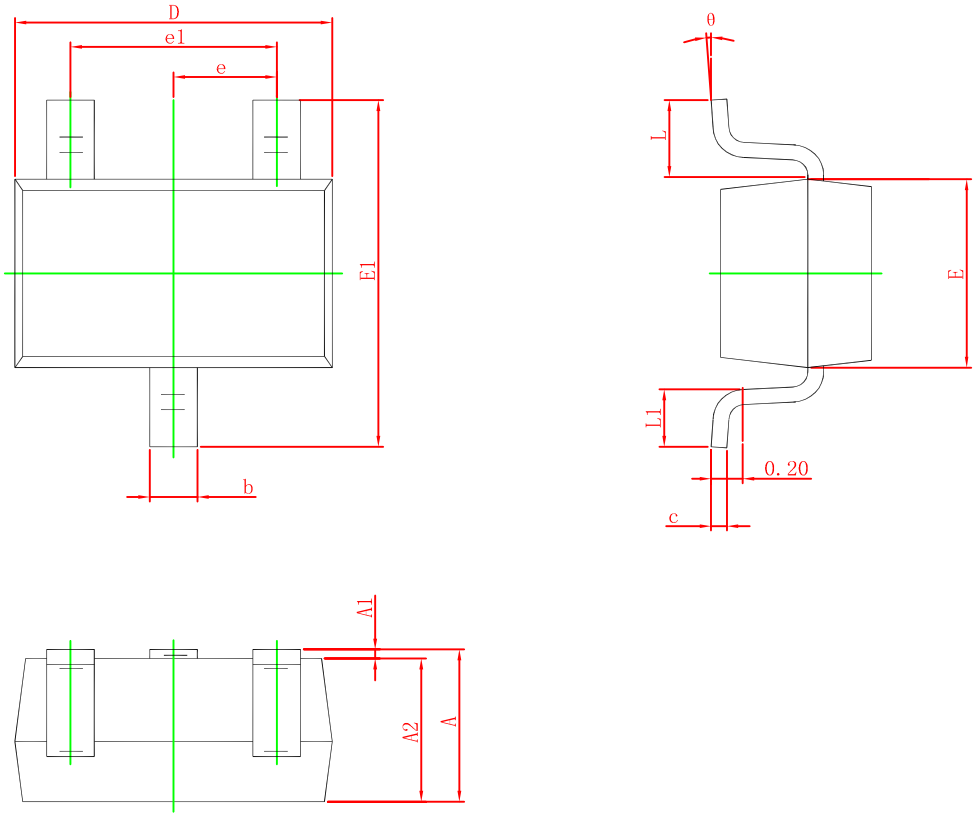
Absolute Maximum Ratings **TA=25℃** **Unless Otherwise noted**

Parameter	Symbol	Limit	Units
Drain-Source Voltage	VDS	100	V
Gate-Source Voltage	VGS	±20	V
Drain Current-Continuous	ID	0.17	A

- **Electrical Characteristics (Ta = 25 °C Unless Otherwise Noted)**

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
Static Characteristics						
BV_{DSS}	Drain-Source Breakdown Voltage	V_{GS} = 0 V, I_{DS} = 250 μA	100	-	-	V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS} = V_{GS}, I_{DS} = 250 μA	1.5	2.0	2.5	V
I_{DSS}	Drain Leakage Current	V_{DS} = 80 V, V_{GS} = 0V	-	-	1	μA
		T_J = 85 °C	-	-	30	μA
I_{GSS}	Gate Leakage Current	V_{GS} = ±20 V, V_{DS} = 0 V	-	-	± 10	μA
$R_{DS(ON)}$ [a]	On-State Resistance	V_{GS} = 10 V, I_{DS} = 0.25 A	-	3.5	6	Ω
		V_{GS} = 4.5 V, I_{DS} = 0.2 A	-	4.5	9	
Diode Characteristics						
V_{SD}	Diode Forward Voltage	I_{SD} = 0.4 A, V_{GS} = 0 V	-	0.91	1.3	V

SOT-323 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP.		0.026 TYP.	
e1	1.200	1.400	0.047	0.055
L	0.525 REF.		0.021 REF.	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°