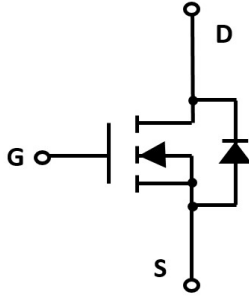
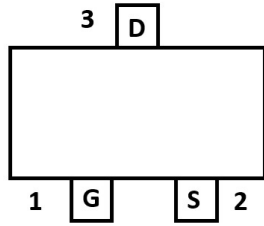
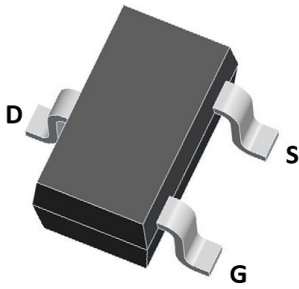


N-Channel Enhancement Mode Field Effect Transistor



SOT-323

Product Summary

- V_{DS} 100V
- I_D 200mA
- $R_{DS(ON)}$ (at $V_{GS}=10V$) 5.0ohm
- $R_{DS(ON)}$ (at $V_{GS}=4.5V$) 5.5ohm

General Description

- Trench Power MV MOSFET technology
- Voltage controlled small signal switch
- High density cell design for low $R_{DS(ON)}$
- Fast Switching Speed

Applications

- Small servo motor control
- Power MOSFET gate drivers
- Switching application

■ Absolute Maximum Ratings ($T_A=25$ unless otherwise noted)

Parameter	Symbol	Limit	Unit
Drain-source Voltage	V_{DS}	100	V
Gate-source Voltage	V_{GS}	20	V
Drain Current	I_D	$T_A=25$ @ Steady State	200
		$T_A=70$ @ Steady State	160
Pulsed Drain Current ^A	I_{DM}	800	mA
Total Power Dissipation @ $T_A=25$	P_D	150	mW
Thermal Resistance Junction-to-Ambient @ Steady State ^B	$R_{\theta JA}$	833	/ W
Junction and Storage Temperature Range	T_J, T_{STG}	-55 +150	

■ Ordering Information

PREFERRED P/N	PACKING CODE	Marking	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BSS123W	F2	B123.	3000	30000	120000	7" reel



BSS123W

■ Electrical Characteristics ($T_J=25$ unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Static Parameter						
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V, I_D$				



■ Typical Performance Characteristics

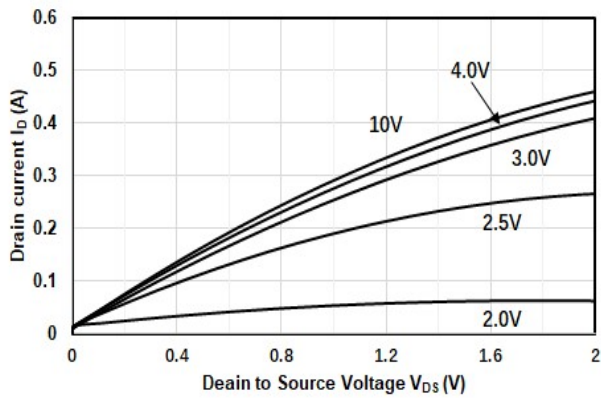


Figure1. Output Characteristics

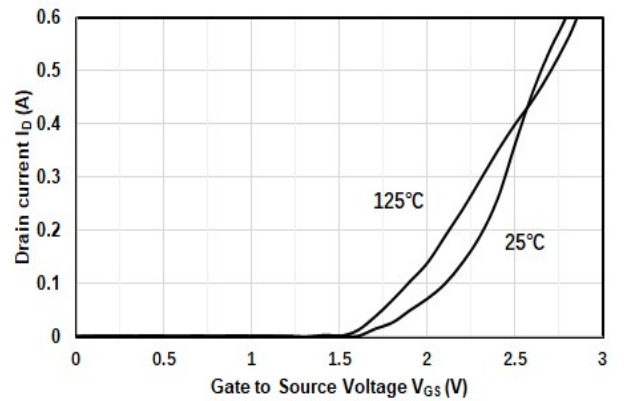


Figure2. Transfer Characteristics

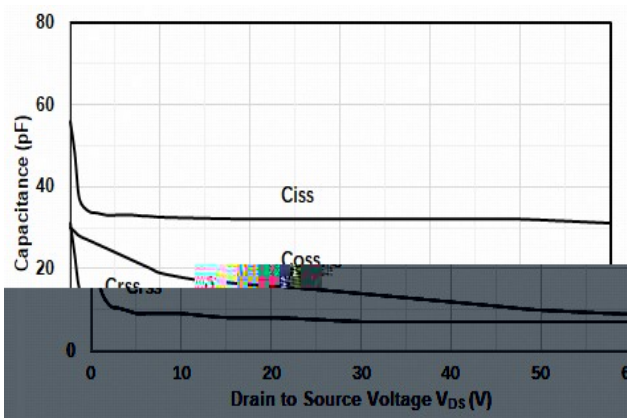


Figure3. Capacitance Characteristics

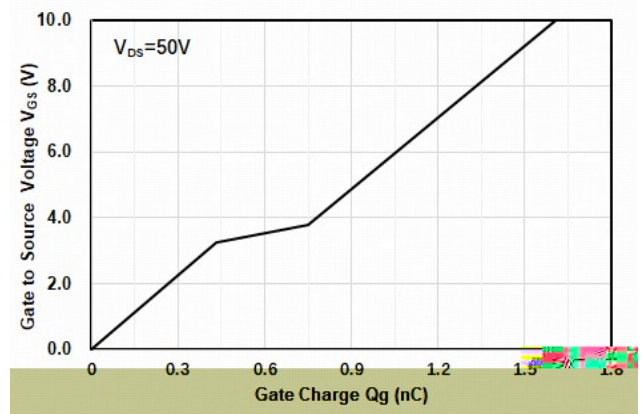


Figure4. Gate Charge

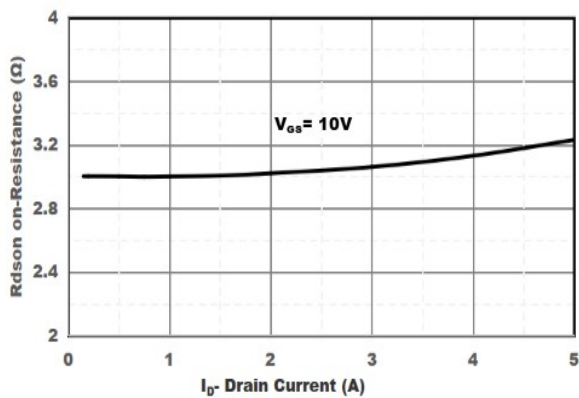


Figure5. Drain-Source on Resistance

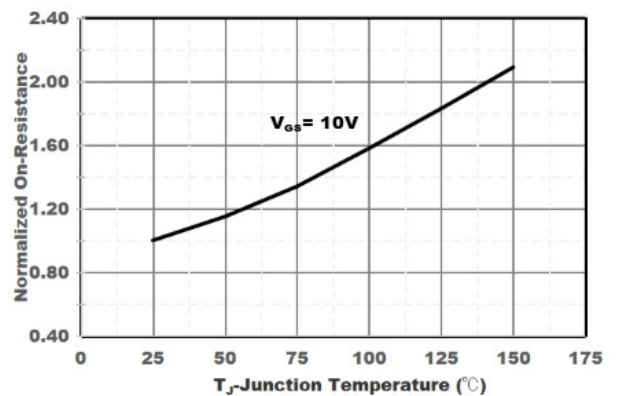


Figure6. Drain-Source on Resistance



BSS123W

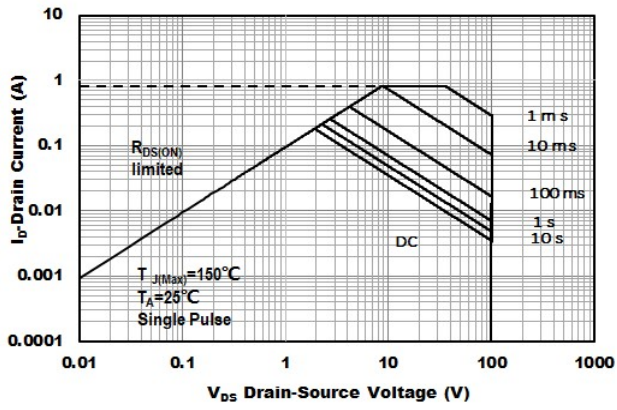


Figure7. Safe Operation Area

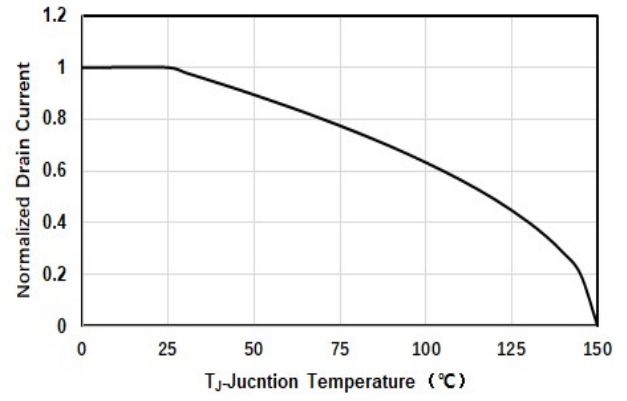
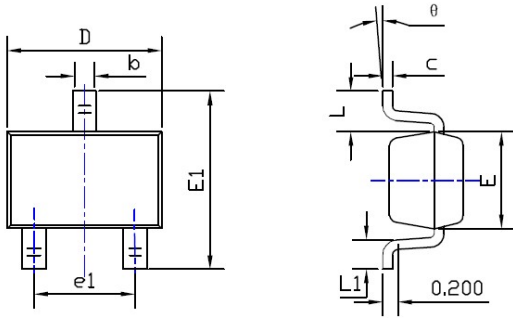


Figure8. Drain-Source Current



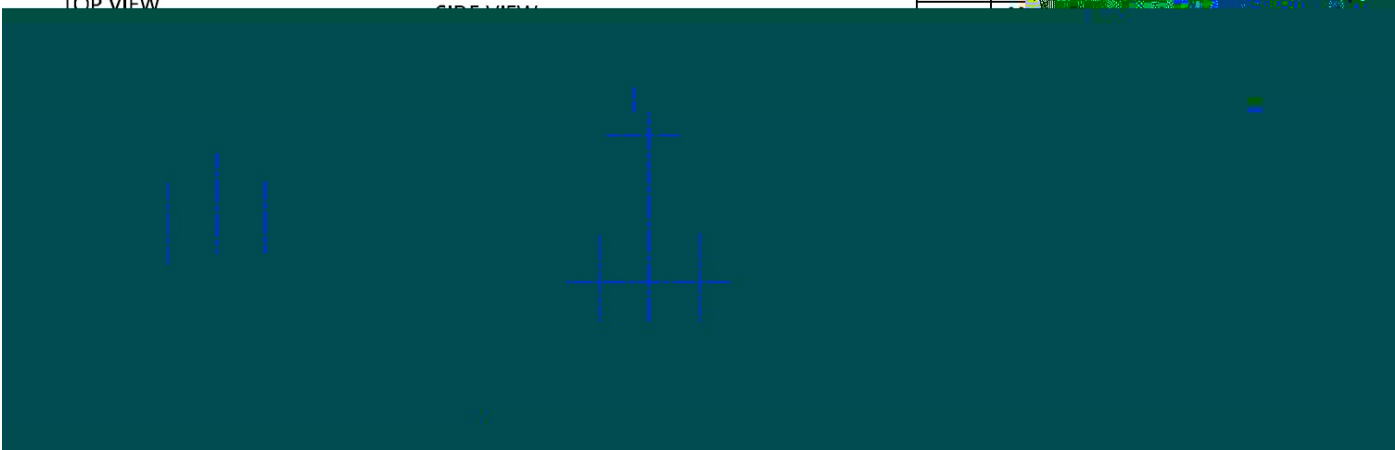
■ SOT-323 Package Information



SYMBOL	INCHES			Millimeter		
	MIN.	NDM.	MAX.	MIN.	NDM.	MAX.
A	0.035	---	0.043	0.900	---	1.100
A1	0.000	---	0.004	0.000	---	0.100
A2	0.035	0.037	0.039	0.900	0.950	1.000
b	0.006	0.012	0.016	0.150	0.300	0.400
c	0.004	---	0.010	0.100	---	0.250
D	0.071	0.075	0.087	1.800	2.000	2.200

TOP VIEW

SIDE VIEW





BSS123W

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