

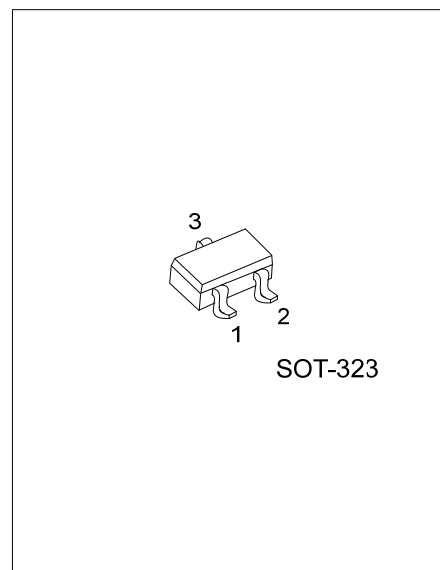
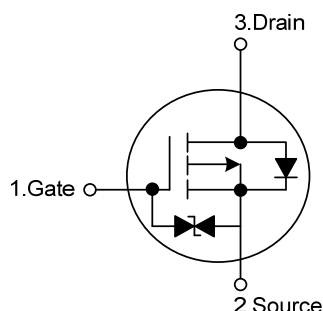
**BSS84ZW****Power MOSFET****-0.13A, -50V P-CHANNEL
ENHANCEMENT MODE FIELD
EFFECT TRANSISTOR****DESCRIPTION**

These P-Channel enhancement mode field vertical D-MOS transistors are in a SOT-323 SMD package, and in most applications they require up to -0.13A DC and can deliver current up to -0.52A.

This product is particularly suited to low voltage applications requiring a low current high side switch.

FEATURES

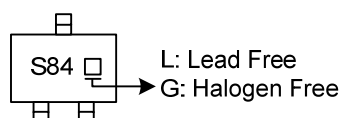
* $R_{DS(ON)} \leq 10 \Omega$ @ $V_{GS} = -4.5V$, $I_D = -0.1A$

SYMBOL**ORDERING INFORMATION**

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
BSS84ZWL-AL3-R	BSS84ZWG-AL3-R	SOT-323	G	S	D	Tape Reel

Note: Pin Assignment: G: Gate S: Source D: Drain

BSS84ZWG-AL3-R	
(1) Packing Type	(1) R: Tape Reel
(2) Package Type	(2) AL3: SOT-323
(3) Green Package	(3) G: Halogen Free and Lead Free, L: Lead Free

MARKING

■ ABSOLUTE MAXIMUM RATINGS (T_A = 25°C, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Drain-Source Voltage	V _{DSS}	-50	V
Gate-Source Voltage	V _{GSS}	±20	V
Continuous Drain Current	I _D	-0.13	A
		-0.52	A
Power Dissipation	P _D	0.26	W
Junction Temperature	T _J	+150	°C
Storage Temperature	T _{STG}	-55 ~ +150	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ THERMAL DATA

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient	θ _{JA}	480.8 (Note)	°C/W

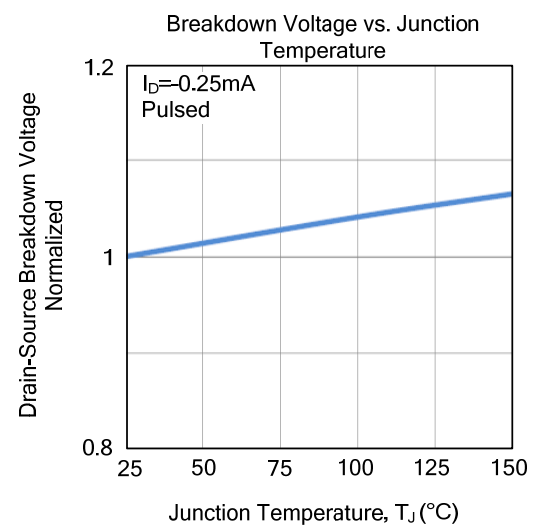
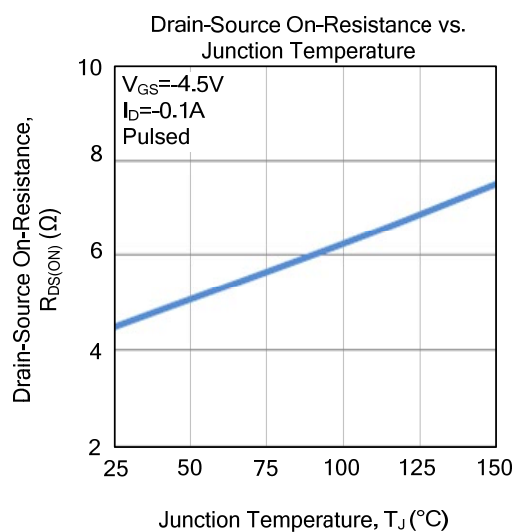
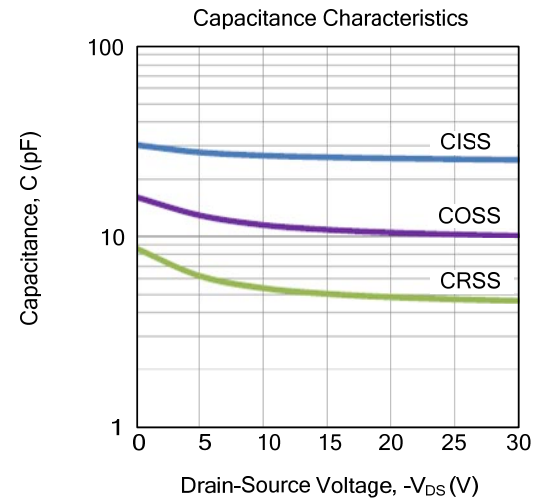
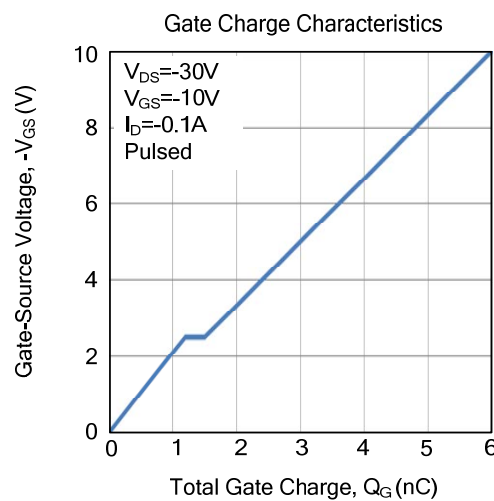
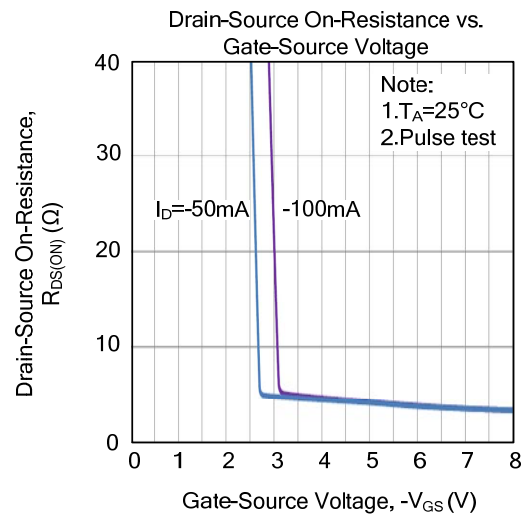
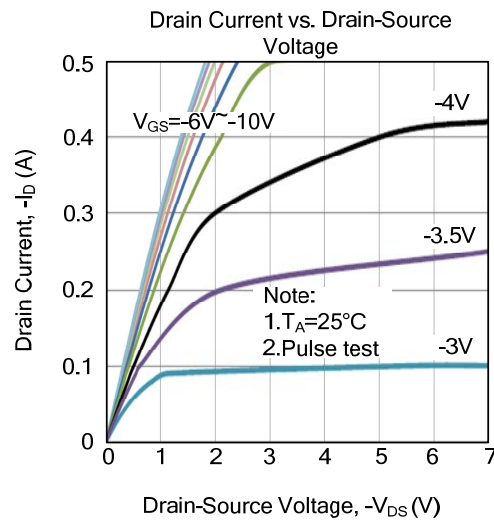
Note: Device mounted on FR-4 substrate PC board, 2oz copper, with 1inch square copper plate.

■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified)

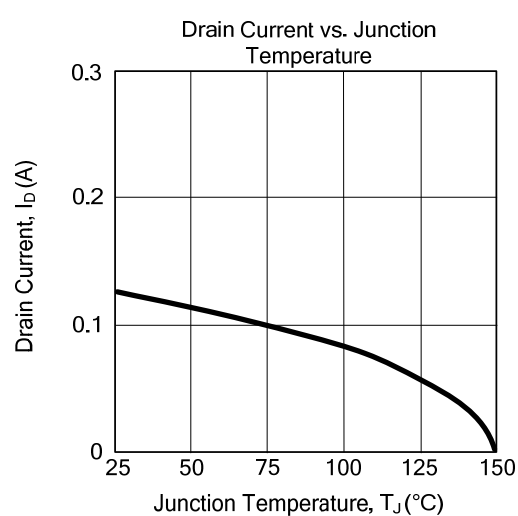
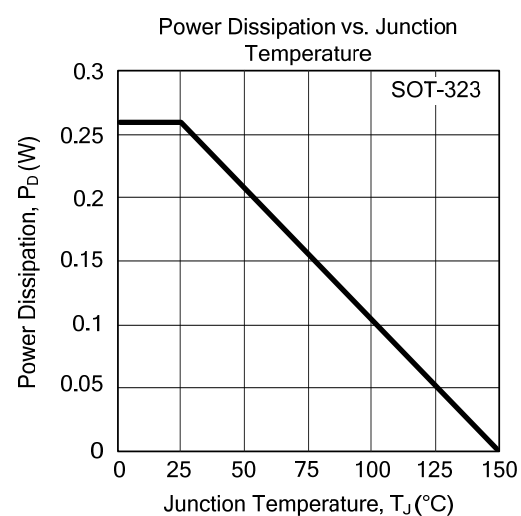
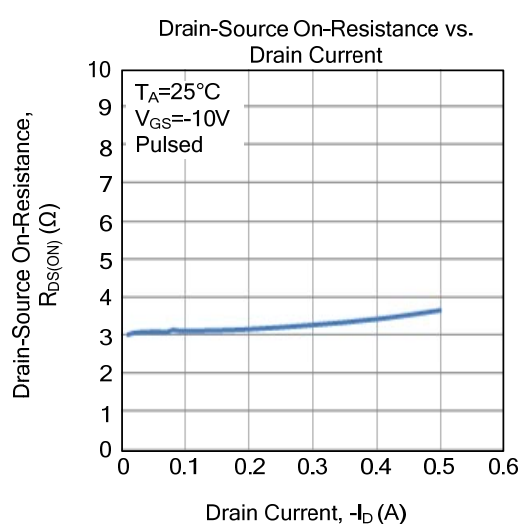
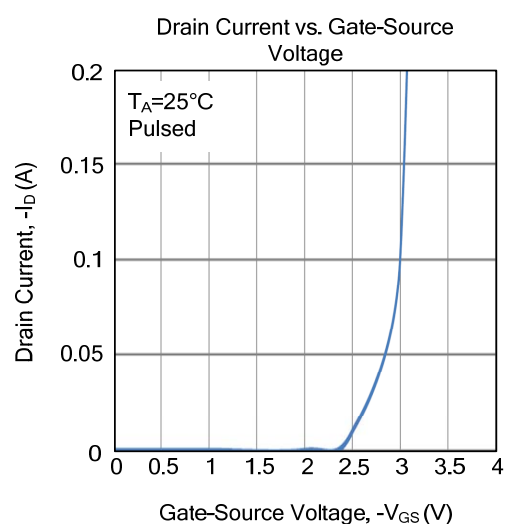
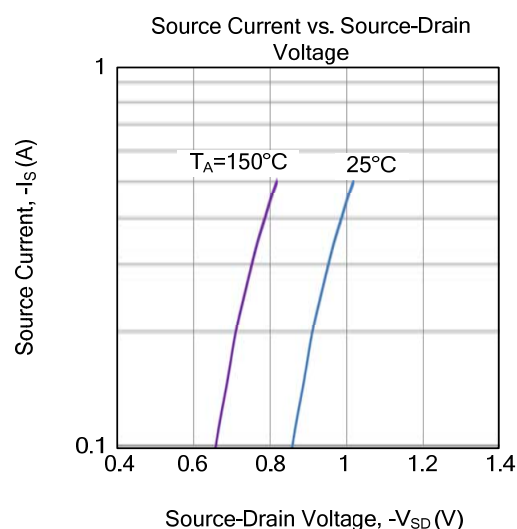
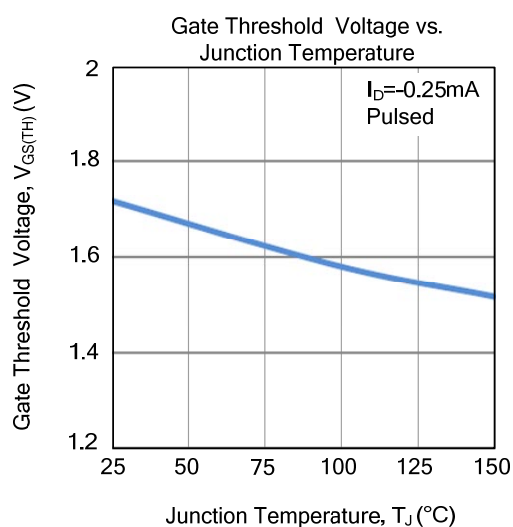
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
OFF CHARACTERISTICS						
Drain-Source Breakdown Voltage	BV _{DSS}	V _{GS} =0V, I _D =-250μA	-50			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =-50V, V _{GS} =0V			-15	μA
Gate-Body Leakage, Forward	I _{GSS}	V _{DS} =0V, V _{GS} =±20V			±10	μA
ON CHARACTERISTICS (Note)						
Gate-Threshold Voltage	V _{GS(TH)}	V _{DS} =V _{GS} , I _D =-1mA	-0.8	-1.7	-2.5	V
Static Drain-Source On-Resistance	R _{DS(ON)}	V _{GS} =-4.5V, I _D =-0.1A			10	Ω
DYNAMIC PARAMETERS						
Input Capacitance	C _{ISS}	V _{DS} =-25V, V _{GS} =0V, f=1MHz		25.9		pF
Output Capacitance	C _{OSS}			10.3		pF
Reverse Transfer Capacitance	C _{RSS}			4.6		pF
SWITCHING PARAMETERS (Note)						
Total Gate Charge	Q _G	V _{DS} =-30V, V _{GS} =-10V, I _D =-0.1A (Note 1, 2)		5.7		nC
Gate Source Charge	Q _{GS}			1.4		nC
Gate Drain Charge	Q _{GD}			1		nC
Turn-ON Delay Time	t _{D(ON)}	V _{DD} =-30V, V _{GS} =-10V, I _D =-0.1A, R _G =3Ω (Note 1, 2)		2		ns
Turn-ON Rise Time	t _R			16		ns
Turn-OFF Delay Time	t _{D(OFF)}			6		ns
Turn-OFF Fall-Time	t _F			40		ns
SOURCE- DRAIN DIODE RATINGS AND CHARACTERISTICS						
Max. Diode Forward Current	I _S				-0.13	A
Pulsed Drain-Source Current	I _{SM}				-0.52	A
Drain-Source Diode Forward Voltage	V _{SD}	V _{GS} = 0V, I _S =-0.13A (Note)		-0.8	-1.2	V

Note: Pulse test, pulse width ≤ 300us, duty cycle ≤ 2%.

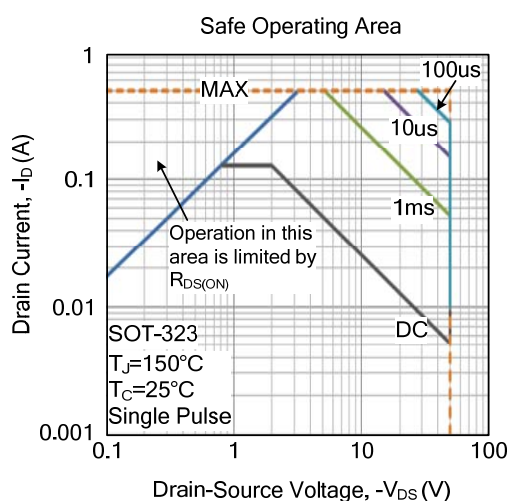
TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS (Cont.)



■ TYPICAL CHARACTERISTICS (Cont.)



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