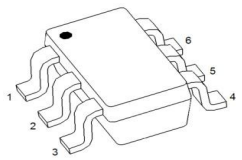
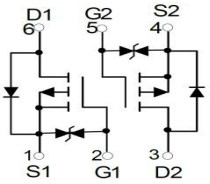
GOODWORK

BSS84DW

Features

- Low On-Resistance
- Low Gate Threshold Voltage
- Low Input Capacitance
- Fast Switching Speed





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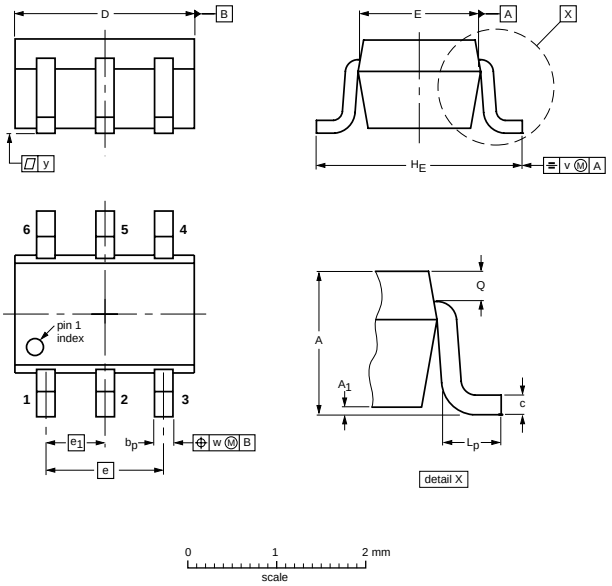

DIMENSIONS (mm are the original dimensions)

UNIT	A	A_1 max	b_p	c	D	E	e	e_1	H_E	L_p	Q	v	w	y
mm	1.1 0.8	0.1	0.30 0.20	0.25 0.10	2.2 1.8	1.35 1.15	1.3	0.65	2.2 2.0	0.45 0.15	0.25 0.15	0.2	0.2	0.1

Maximum Ratings @ T_A = 25 C unless otherwise specified

Characteristic		Symbol	Value	Units
Drain-Source Voltage		V_{DSS}	-50	V
Drain-Gate Voltage (Note 1)		V_{DGR}	-50	V
Gate-Source Voltage	Continuous	V_{GSS}	20	V
Drain Current (Note 2)	Continuous	I_D	-130	mA
Total Power Dissipation (Note 2)		P_d	300	mW
Thermal Resistance, Junction to Ambient		R_{JA}	417	C/W
Operating and Storage Temperature Range		T_j, T_{STG}	-55 to +150	C

Note: 1. R_{GS} 20K .

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Electrical Characteristics @ T_A = 25 C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
OFF CHARACTERISTICS (Note 4)						
Drain-Source Breakdown Voltage	BV_{DSS}	-50	-75		V	V_{GS} = 0V, I_D = -250 A
Zero Gate Voltage Drain Current	I_{DSS}			-15 -60	µA µA	V_{DS} = -50V, V_{GS} = 0V, T_J = 25 C V_{DS} = -50V, V_{GS} = 0V, T_J = 125 C
Gate-Body Leakage	I_{GSS}			10	uA	V_{GS} = 20V, V_{DS} = 0V
ON CHARACTERISTICS (Note 4)						
Gate Threshold Voltage	$V_{GS(th)}$	-0.8	-1.6	-2.0	V	V_{DS} = V_{GS}, I_D = -1mA
Static Drain-Source On-Resistance	$R_{DS\ (ON)}$		6	10		V_{GS} = -5V, I_D = -0.100A
Forward Transconductance	g_{FS}	0.05			S	V_{DS} = -25V, I_D = -0.1A
DYNAMIC CHARACTERISTICS						
Input Capacitance	C_{iss}			45	pF	V_{DS} = -25V, V_{GS} = 0V f = 1.0MHz
Output Capacitance	C_{oss}			25	pF	
Reverse Transfer Capacitance	C_{rss}			12	pF	
SWITCHING CHARACTERISTICS						
Turn-On Delay Time	$t_{D(ON)}$		10		ns	V_{DD} = -30V, I_D = -0.27A, R_{GEN} = 50 , V_{GS} = -10V
Turn-Off Delay Time	$t_{D(OFF)}$		18		ns	

RATING AND CHARACTERISTIC CURVES (BSS84DW)

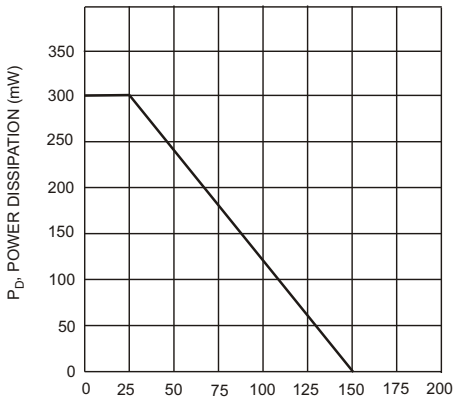

Fig. 1, Max Power Dissipation vs Ambient Temperature

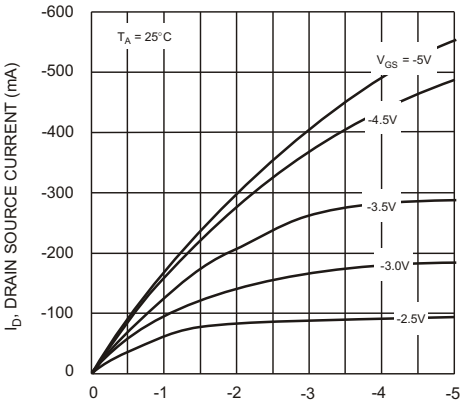

Fig. 2, Drain Source Current vs. Drain Source Voltage

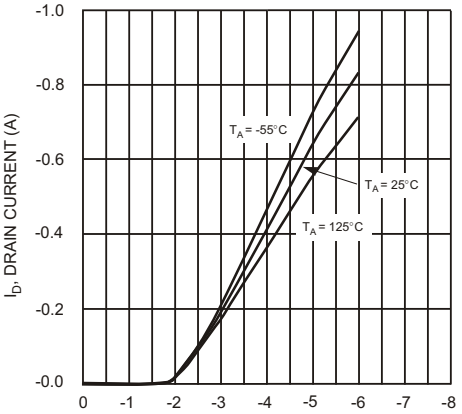

Fig. 3, Drain Current vs. Gate Source Voltage

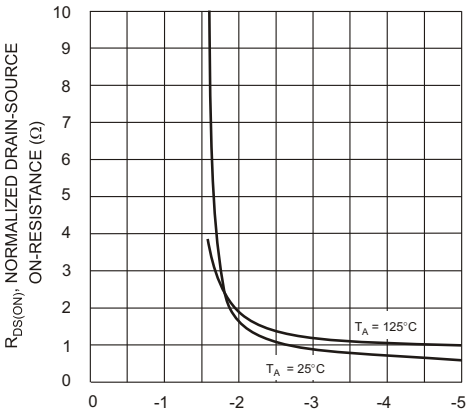

Fig. 4, On Resistance vs. Gate Source Voltage

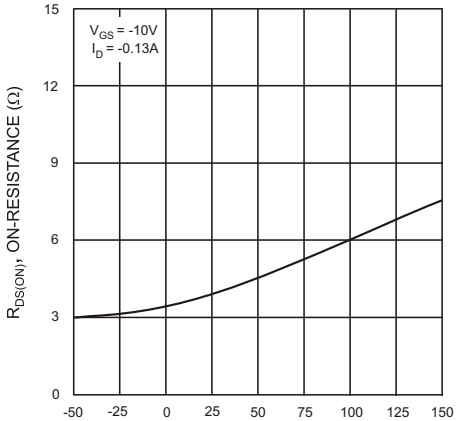

Fig. 5, On-Resistance vs. Junction Temperature

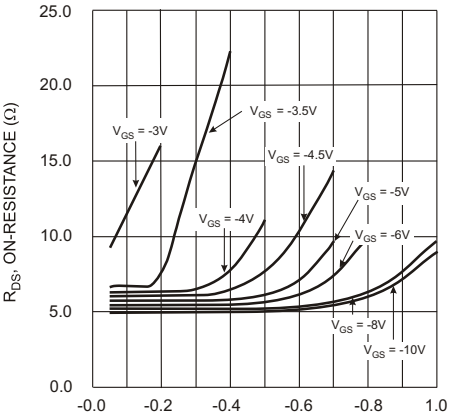

Fig. 6, On-Resistance vs. Drain Current