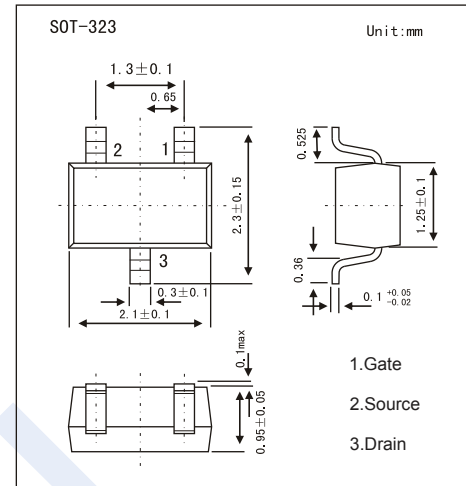
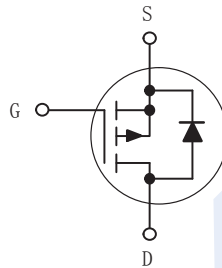


P-channel MOSFET

BSS84W

■ Features

- $V_{DS} (V) = -50V$
- $I_D = -130mA$
- $R_{DS(on)max} = 10\Omega @ V_{GS} = -5V$
- Low On-Resistance
- Low Gate Threshold Voltage
- Low Input Capacitance
- Fast Switching Speed



■ Absolute Maximum Ratings (TA = 25°C Unless otherwise noted)

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-50	V
Gate-Source Voltage	V_{GS}	± 20	
Continuous Drain Current	I_D	-130	mA
Power Dissipation	P_D	300	mW
Thermal Resistance, Junction- to-Ambient	$R_{\theta JA}$	417	$^{\circ}C/W$
Junction Temperature	T_J	150	$^{\circ}C$
Junction Storage Temperature Range	T_{STG}	-55 to 150	

Note 1. Device mounted on FR-4 PCB, 1 inch x 0.85 inch x 0.062 inch.

P-channel MOSFET

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■ Electrical Characteristics (T_A = 25°C Unless otherwise noted)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V _{DSS}	I _D = -250μA, V _{GS} = 0V	-50			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = -50V, V _{GS} = 0V, T _J = 25°C			-1	μA
		V _{DS} = -50V, V _{GS} = 0V, T _J = 125°C			-2	
		V _{DS} = -25V, V _{GS} = 0V, T _J = 25°C			100	nA
Gate-Body Leakage Current	I _{GSS}	V _{DS} = 0V, V _{GS} = ±20V			±10	μA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = -250μA	-0.8		-2.0	V
Static Drain-Source On-Resistance	R _{DS(on)}	V _{GS} = -5V, I _D = -100mA			10	Ω
Forward Transconductance	g _{FS}	V _{DS} = -25V, I _D = -0.1A	50			mS
Input Capacitance	C _{iss}	V _{GS} = 0V, V _{DS} = -16V, f = 1MHz			175	pF
Output Capacitance	C _{oss}				30	
Reverse Transfer Capacitance	C _{rss}				20	
Turn-On Delay Time	t _{D(ON)}	V _{DD} = -30V, I _D = -0.27A, R _{GEN} = 50Ω, V _{GS} = -10V		10		ns
Turn-Off Delay Time	t _{D(OFF)}			18		
Diode Forward Voltage	V _{SD}	I _{SD} = -115mA, V _{GS} = 0V			-1.2	V

■ Marking

Marking	PD
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P-channel MOSFET

BSS84W

Typical Characteristics

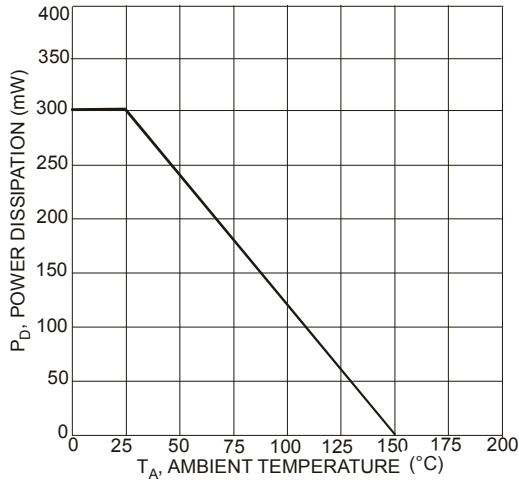


Fig. 1 Max Power Dissipation vs. Ambient Temperature

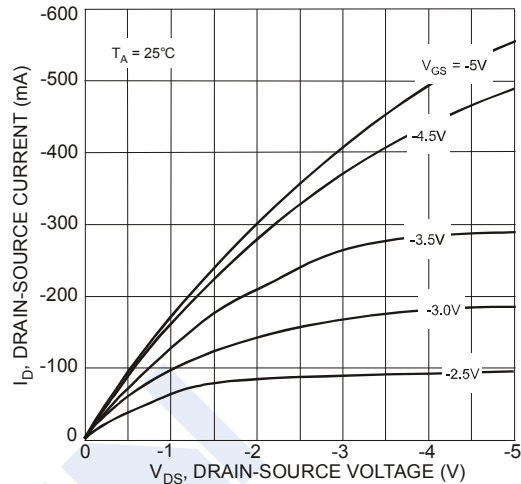


Fig. 2 Drain-Source Current vs. Drain-Source Voltage

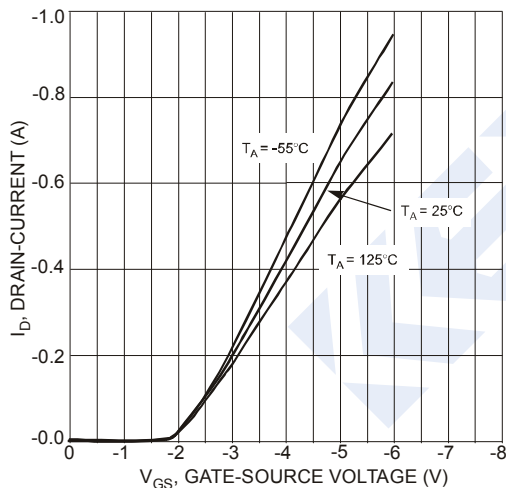


Fig. 3 Drain-Current vs. Gate-Source Voltage

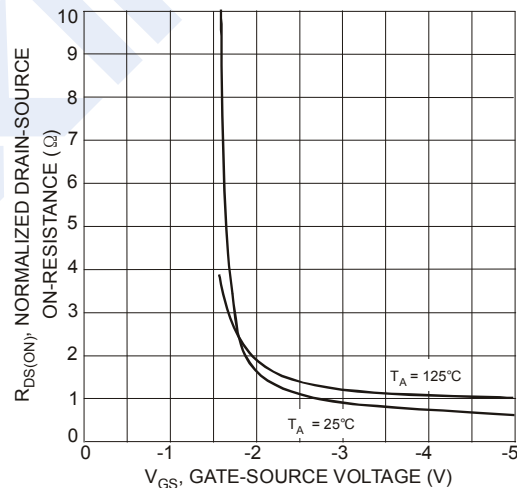


Fig. 4 On-Resistance vs. Gate-Source Voltage

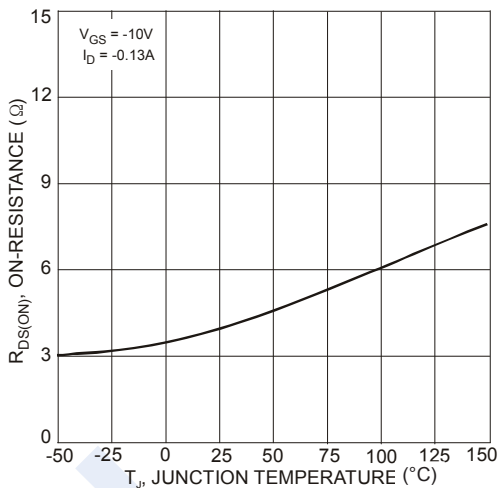


Fig. 5 On-Resistance vs. Junction Temperature

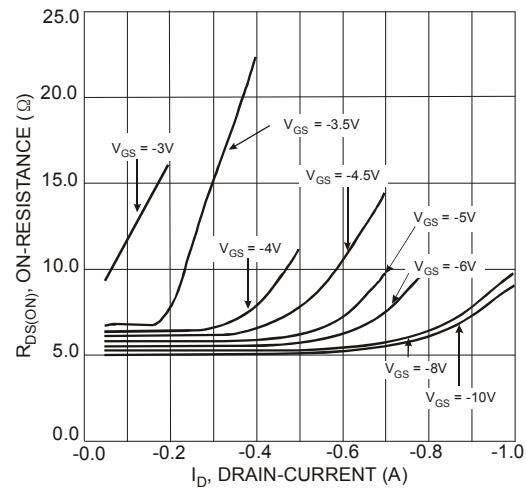


Fig. 6 On-Resistance vs. Drain-Current