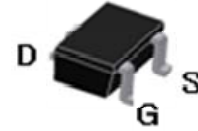
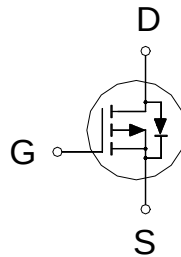


P-Channel Logic Level Enhancement Mode Field Effect Transistor

Product Summary:

BV _{DSS}	-20V
R _{DS(on)} (MAX.)	44mΩ
I _D	-4A



Pb-Free Lead Plating & Halogen Free



ABSOLUTE MAXIMUM RATINGS (T_A = 25 °C Unless Otherwise Noted)

PARAMETERS/TEST CONDITIONS		SYMBOL	LIMITS	UNIT
Gate-Source Voltage		V _{GS}	±12	V
Continuous Drain Current	T _A = 25 °C	I _D	-4	A
	T _A = 70 °C		-3	
Pulsed Drain Current ¹		I _{DM}	-16	
Power Dissipation	T _A = 25 °C	P _D	1.04	W
	T _A = 70 °C		0.66	
Operating Junction & Storage Temperature Range		T _j , T _{stg}	-55 to 150	°C

THERMAL RESISTANCE RATINGS

THERMAL RESISTANCE	SYMBOL	TYPICAL	MAXIMUM	UNIT
Junction-to-Ambient ³	R _{θJA} (T ≤ 10sec)		83	°C / W
	R _{θJA} (Steady State)		120	

¹Pulse width limited by maximum junction temperature.

²Duty cycle ≤ 1%

³The device mounted on a 1 in² pad of 2 oz copper.

ELECTRICAL CHARACTERISTICS (T_J = 25 °C, Unless Otherwise Noted)

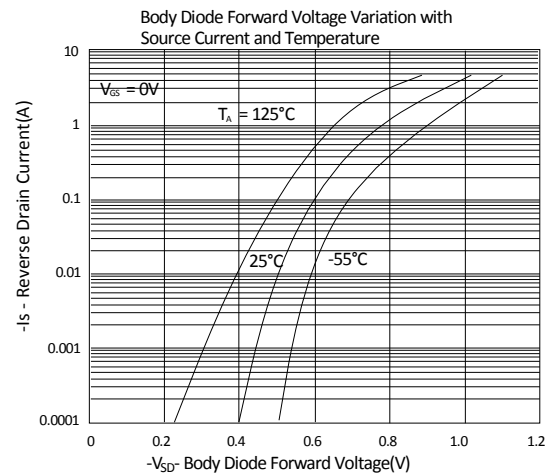
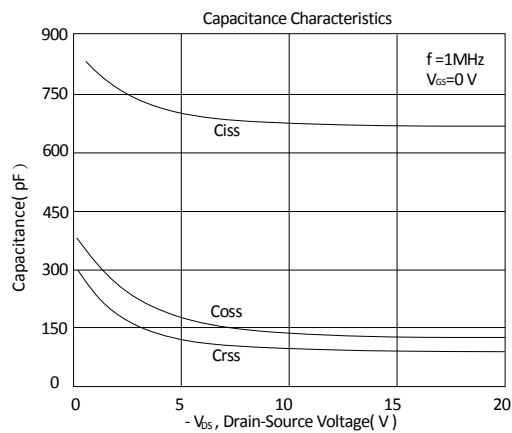
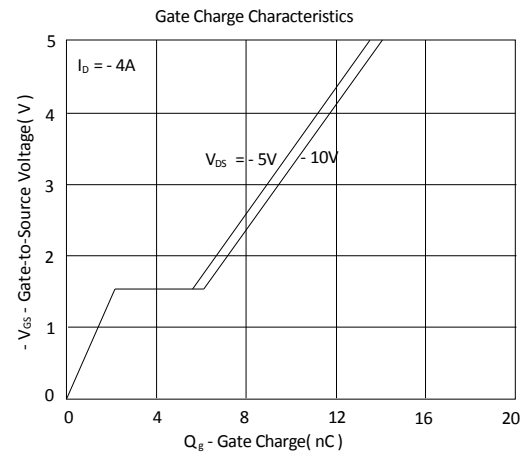
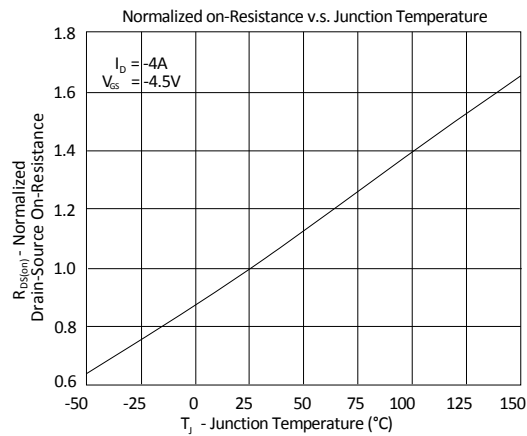
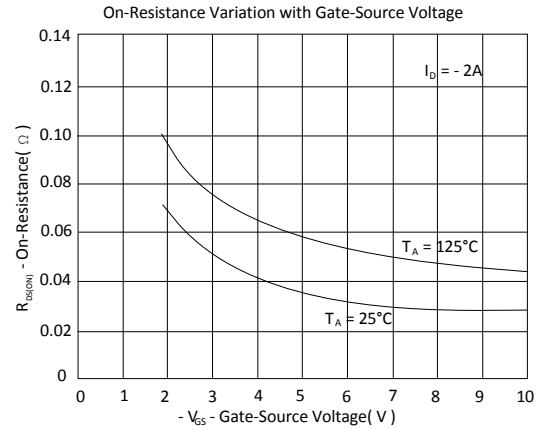
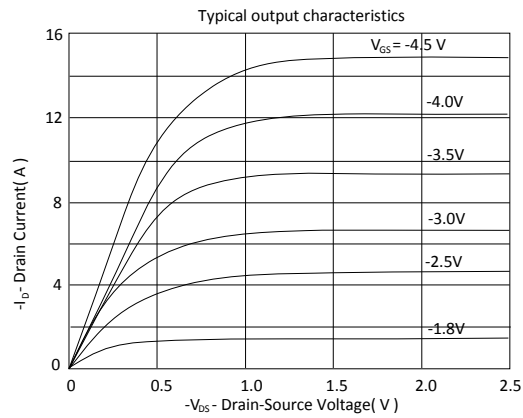
PARAMETER	SYMBOL	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
STATIC						
Drain-Source Breakdown Voltage	V _{(BR)DSS}	V _{GS} = 0V, I _D = -250μA	-20			V
Gate Threshold Voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = -250μA	-0.3	-0.75	-1.0	
Gate-Body Leakage	I _{GSS}	V _{DS} = 0V, V _{GS} = ±12V			±100	nA
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = -16V, V _{GS} = 0V			-1	μA
		V _{DS} = -16V, V _{GS} = 0V, T _J = 125 °C			-10	
On-State Drain Current ¹	I _{D(ON)}	V _{DS} = -5V, V _{GS} = -4.5V	-4			A
Drain-Source On-State Resistance ¹	R _{DS(ON)}	V _{GS} = -4.5V, I _D = -4A		37	44	mΩ
		V _{GS} = -2.5V, I _D = -3A		55	70	
		V _{GS} = -1.8V, I _D = -1A		65	90	
Forward Transconductance ¹	g _{fs}	V _{DS} = -5V, I _D = -4A		14		S
DYNAMIC						
Input Capacitance	C _{iss}	V _{GS} = 0V, V _{DS} = -10V, f = 1MHz		679		pF
Output Capacitance	C _{oss}			124		
Reverse Transfer Capacitance	C _{rss}			106		
Total Gate Charge ^{1,2}	Q _g	V _{DS} = -10V, V _{GS} = -4.5V, I _D = -4A		12.8		nC
Gate-Source Charge ^{1,2}	Q _{gs}			2.2		
Gate-Drain Charge ^{1,2}	Q _{gd}			4.1		
Turn-On Delay Time ^{1,2}	t _{d(on)}	V _{DS} = -10V, I _D = -1A, V _{GS} = -4.5V, R _{GS} = 6Ω		10		nS
Rise Time ^{1,2}	t _r			18		
Turn-Off Delay Time ^{1,2}	t _{d(off)}			32		
Fall Time ^{1,2}	t _f			22		
SOURCE-DRAIN DIODE RATINGS AND CHARACTERISTICS (T _C = 25 °C)						
Continuous Current	I _S				-3	A
Pulsed Current ³	I _{SM}				-12	
Forward Voltage ¹	V _{SD}	I _F = I _S , V _{GS} = 0V			-1.2	V

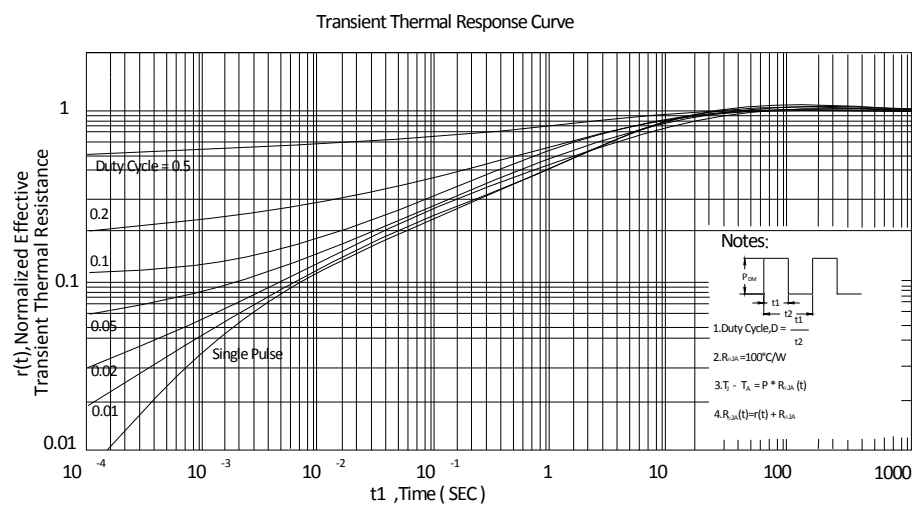
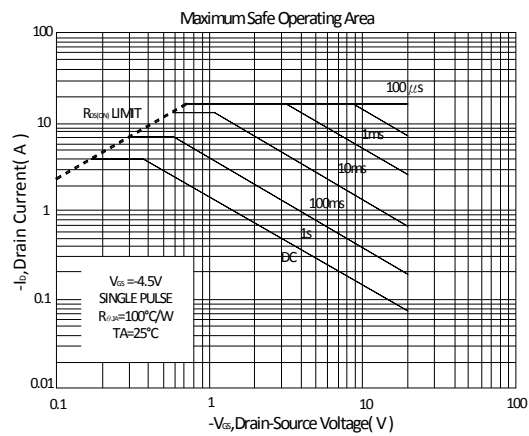
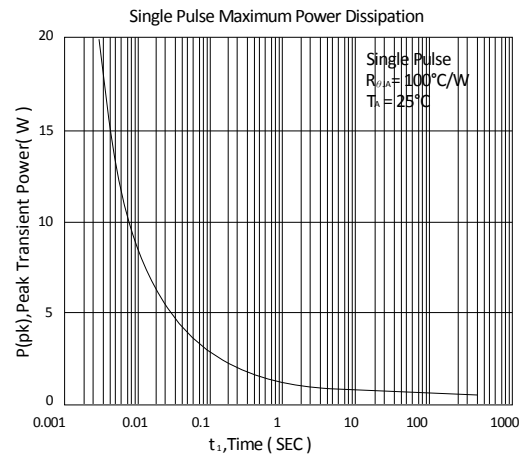
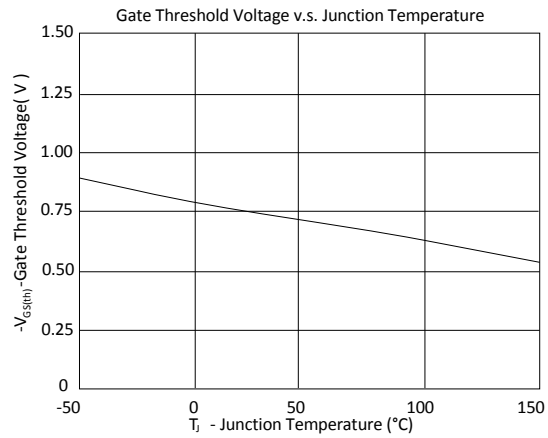
¹Pulse test : Pulse Width ≤ 300 μsec, Duty Cycle ≤ 2%.

²Independent of operating temperature.

³Pulse width limited by maximum junction temperature.

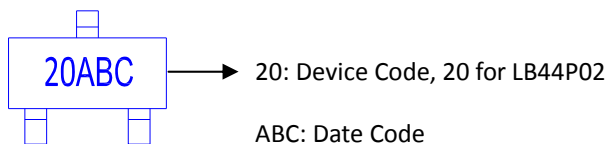
TYPICAL CHARACTERISTICS



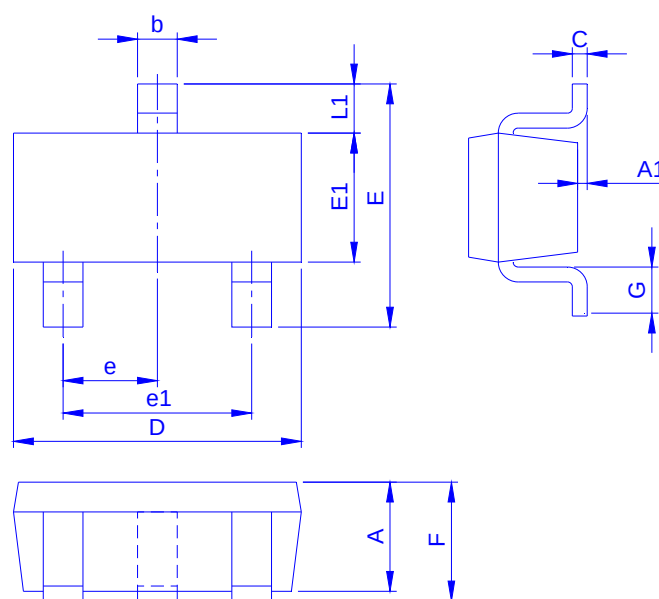


Ordering & Marking Information:

Device Name: LB44P02QS for SOT-23



Outline Drawing



Dimension in mm

Dimension	A	A1	b	C	D	E	E1	e	e1	F	G	L1
Min.	0.70	0	0.3	0.08	2.80	2.25	1.2	0.90		0.80	0.3	0.50
Typ.					2.90			0.95	1.9			
Max.	1.15	0.1	0.5	0.20	3.02	3.00	1.7	1.00		1.25	0.6	0.75

Footprint

