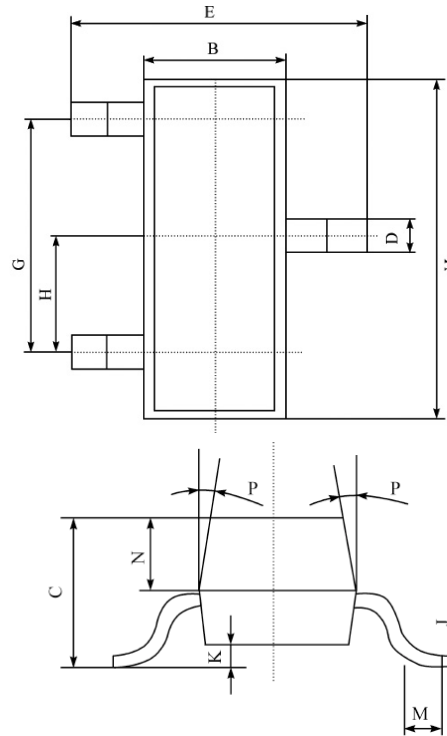
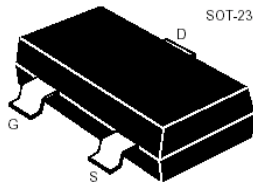


**P-Channel Enhancement-Mode  
MOSFETs  
BWS2301**

**MECHANICAL DATA**

- \* Case: SOT-23 Molded plastic
- \* Epoxy: UL94V-O rate flame retardant



A	2.90±0.10
B	1.30±0.10
C	1.00±0.10
D	0.40±0.10
E	2.40±0.20
G	1.90±0.10
H	0.95±0.05
J	0.13±0.05
K	0.00-0.10
M	≥0.2
N	0.60±0.10
P	7±2°

Dimensions in millimeter

**Maximum Ratings (Tc=25°C unless otherwise noted)**

Parameter	Symbol	BWS2301	Unit
Drain-Source Voltage	BVDSS	-20	V
Gate- Source Voltage	VGS	+/-8	V
Drain Current (continuous)	ID	-2.3	A
Drain Current (pulsed)	IDM	-10	A
Total Device Dissipation	PD	450	mW
Junction	TJ	150	°C
Storage Temperature	Tstg	-55to+150	°C

**Maximum Ratings** (Tc=25°C unless otherwise noted)

Parameter	Symbol	MIN	TYP	MAX	Unit
Drain-Source Breakdown Voltage (ID =250uA, VGS=0V)	BVDSS	-20		--	V
Gate Threshold Voltage (ID = 250uA, VGS= VDS)	VGS(th)	-0.5		-1.5	V
Drain-Source On Voltage (ID= -50mA, VGS= -5V) (ID = -500mA, VGS= -10V)	VDS(ON)	--		-0.375 -3.75	V
Diode Forward Voltage Drop (IS= -0.75A, VGS=0V)	VSD	--	--	-1.2	V
Zero Gate Voltage Drain Current (VGS=0V, VDS= -16V) (VGS=0V, VDS= -16V, TA=55°C)	IDSS	--	--	-1 -10	uA
Gate Body Leakage (VGS=+8V, VDS=0V)	IGSS	--	--	+/- 100	nA
Static Drain-Source On-State Resistance (ID= 2.6A, VGS=4.5V) (ID=1A, VGS=2.5V)	RDS(ON)	--	--	0.15 0.22	mΩ
Input Capacitance (VGS=0V, VDS= -6V, f=1MHz)	CISS	--	--	880	pF
Output Capacitance (VGS=0V, VDS= -6V, f=1MHz)	COSS	--	--	270	pF
Turn-ON Time (VDS= -6V, ID= -1A, RGEN=6Ω)	t(on)	--	--	20	ns
Turn-OFF Time (VDS= -6V, ID= -1A, RGEN=6Ω)	t(off)	--	--	65	ns

Pulse Width&lt;300μs; Duty Cycle&lt;2.0%