

P Channel Lateral Mosfet

- Designed specifically for linear audio amplifier applications
- High-speed for high bandwidth amplifiers
- High voltage rating - 200V
- TO-264 plastic package
- Enhanced oscillation suppression in multi-device applications
- Complementary N-channel available – ECW20N20-Z



ABSOLUTE MAXIMUM RATINGS

($T_C = 25^\circ\text{C}$ unless otherwise stated)

V_{DSS}	Drain – Source Voltage	-200V
V_{GSS}	Gate – Source Voltage	+/- 20V
I_D	Continuous Drain Current	-16A
I_{DR}	Body Drain Diode Current	-16A
P_D	Allowable Power Dissipation* $T_{case} = 25^\circ\text{C}$	250W
T_{ch}	Channel Temperature	150°C
T_{stg}	Storage Temperature Range	-55 to +150°C

*Thermal Resistance, Junction To Case

0.5 deg/watt

WARNING: These lateral mosfets do not include a G-S protection network and care must therefore be taken with static handling precautions and the appropriate protection in the amplifier circuit.

ELECTRICAL CHARACTERISTICS ($T_C = 25^\circ\text{C}$ unless otherwise stated)

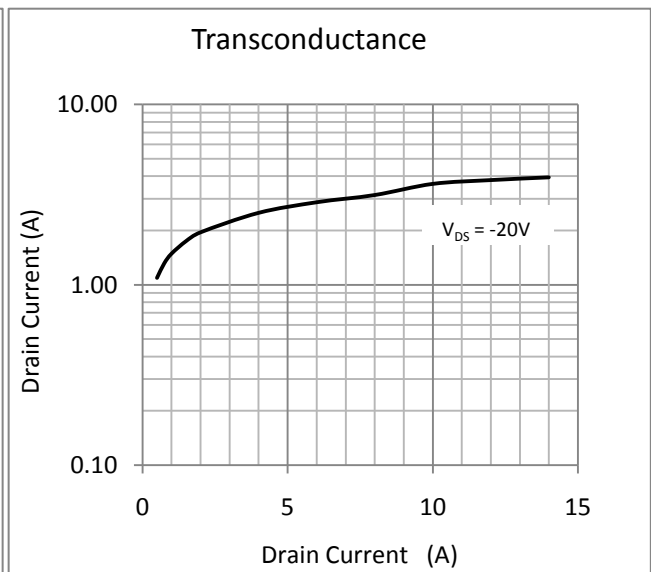
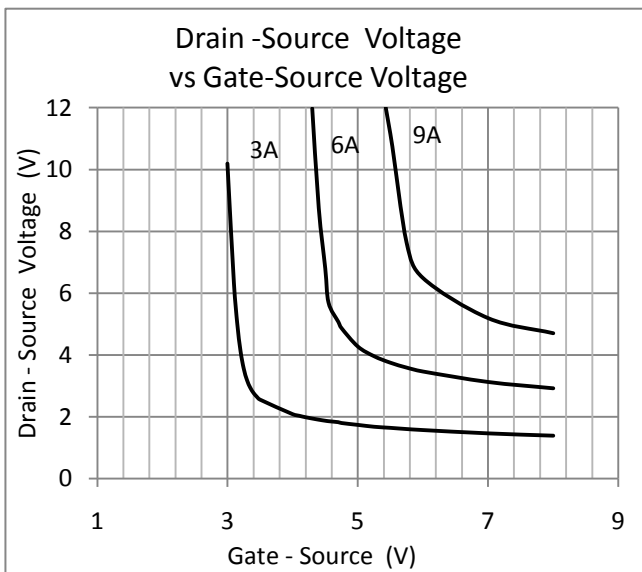
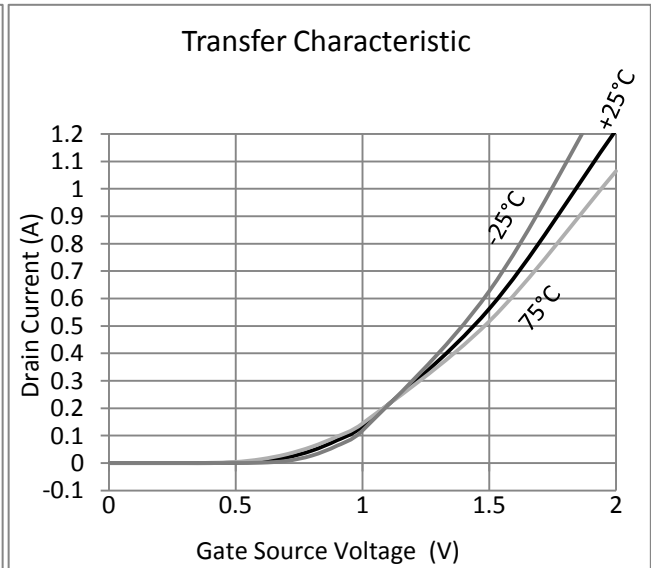
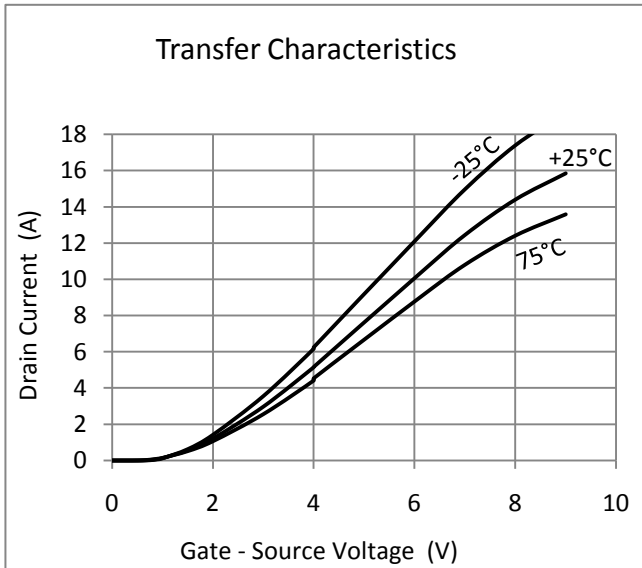
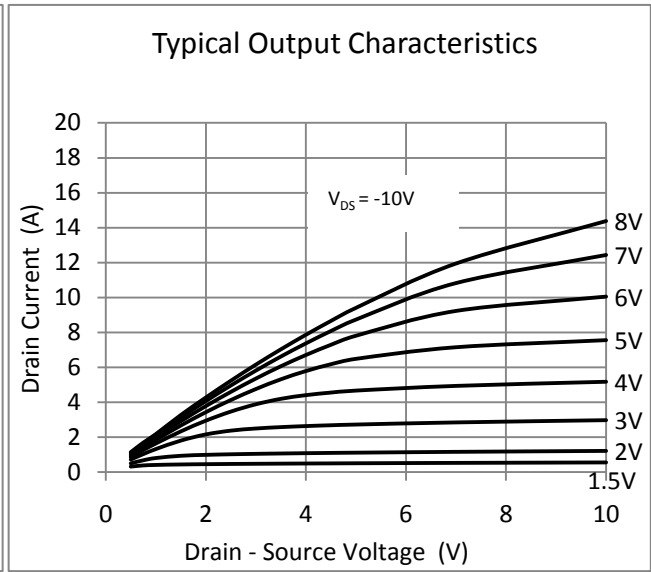
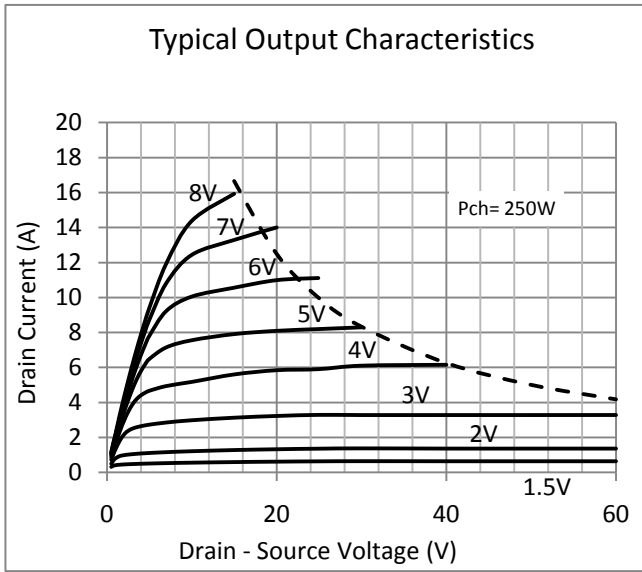
Symbols	Parameters	Test Conditions	Min.	Typ	Max.	Units
BV_{DSX}	Drain-Source Breakdown Voltage	$V_{GS} = 10V$ $I_D = -10mA$	-200			V
I_{GSS}	Gate-Source Leakage Current	$V_{DS} = 0$ $V_{GS} = \pm 20V$			100	μA
$V_{GS(off)}$	Gate-Source Cut-off Voltage	$V_{DS} = -10V$ $I_D = -100mA$	-0.1		-1.5	V
$V_{DS(sat)}^*$	Drain-Source Saturation Voltage	$V_{GD} = 0$ $I_D = -16A$			-12	V
$ y_{fs} ^*$	Forward Transfer Admittance	$V_{DS} = 10V$ $I_{DS} = -3A$	1.4		4	$S(\bar{O})$
I_{DSX}	Drain-Source Cut-Off Current	$V_{GS} = 10V$ $V_{DS} = -200V$			-10	mA

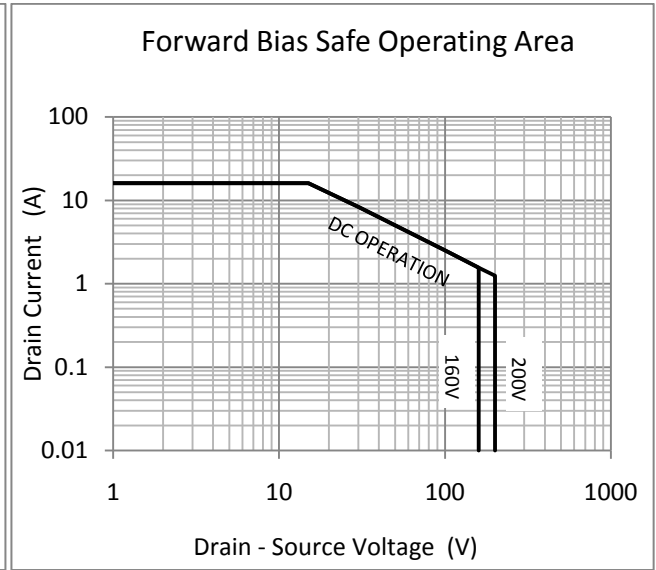
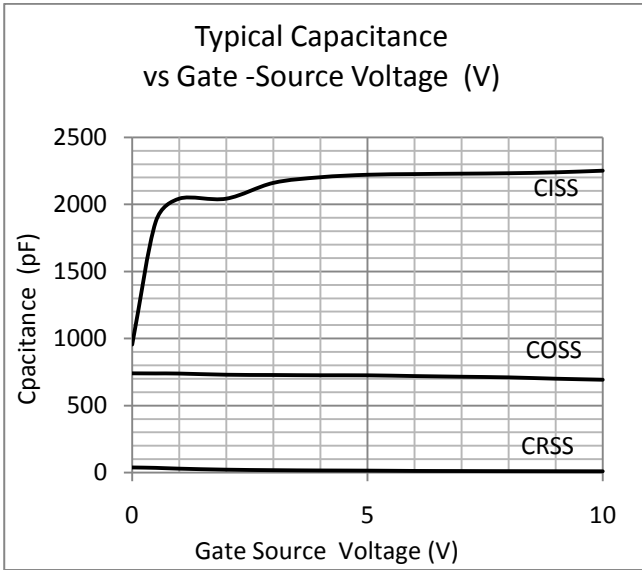
* Pulse Test: Pulse Width = $300\mu s$, Duty Cycle $\leq 2\%$

DYNAMIC CHARACTERISTICS

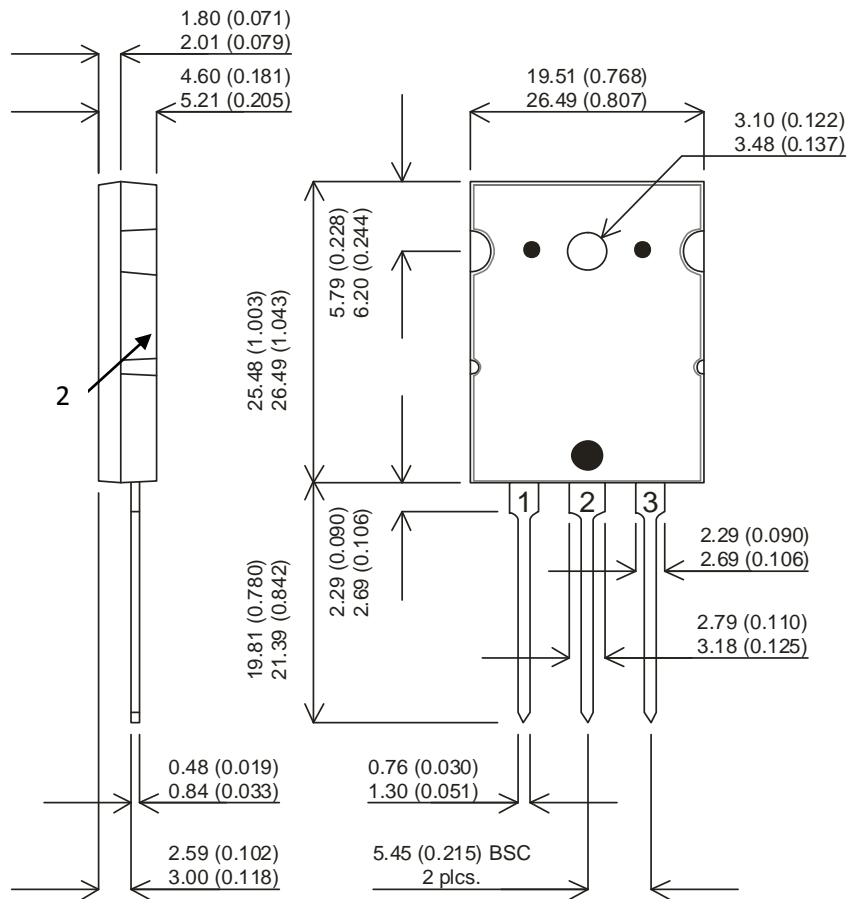
C_{iss}	Input Capacitance	$V_{GS} = 0$		1850		pF
C_{oss}	Output Capacitance	$V_{DS} = -10V$		850		
C_{rss}	Reverse Transfer Capacitance	$f = 1.0MHz$		55		
t_{on}	Turn-On Time	$V_{DS} = -20V$		150		ns
t_{off}	Turn-Off Time	$I_D = -7A$		105		

GENERAL CHARACTERISTICS ($T_C = 25^\circ\text{C}$ unless otherwise stated)





Dimensions in mm (Inches)



Pin1 - Gate

Pin2 - Source

Pin3 - Drain

March 15 2010