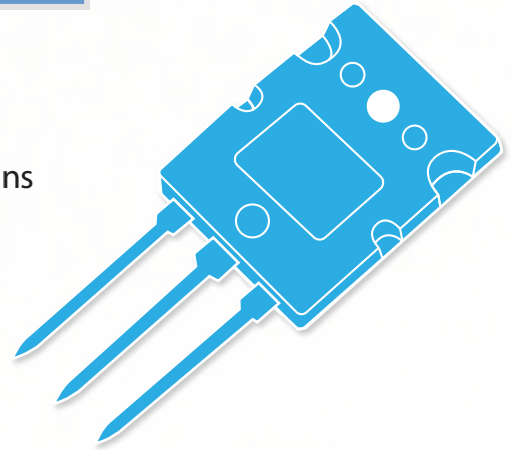


P CHANNEL LATERAL MOSFET

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°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°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 (TC = 25°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

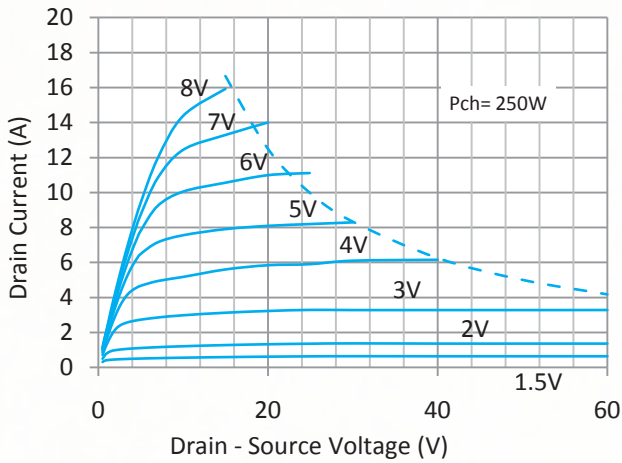
* Pulse Test: Pulse Width = 300 μ s, Duty Cycle \leq 2%

DYNAMIC CHARACTERISTICS

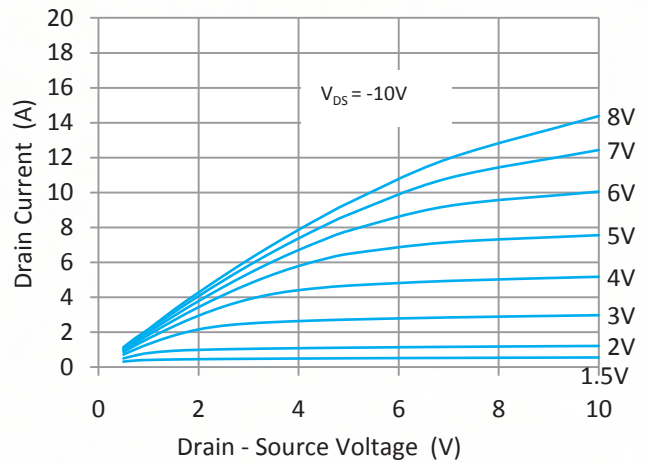
Symbols	Parameters	Test Conditions	Min.	Typ	Max.	Units
C_{iss}	Input Capacitance			1850		pF
C_{oss}	Output Capacitance	$V_{GS} = 0$		850		pF
C_{rss}	Reverse Transfer Capacitance	$V_{DS} = -10V$ $f = 1.0MHz$		55		pF
t_{on}	Turn-On Time	$V_{DS} = -20V$		150		ns
t_{off}	Turn-Off Time	$I_D = 7A$		105		ns

GENERAL CHARACTERISTICS (T = 25°C unless otherwise stated)

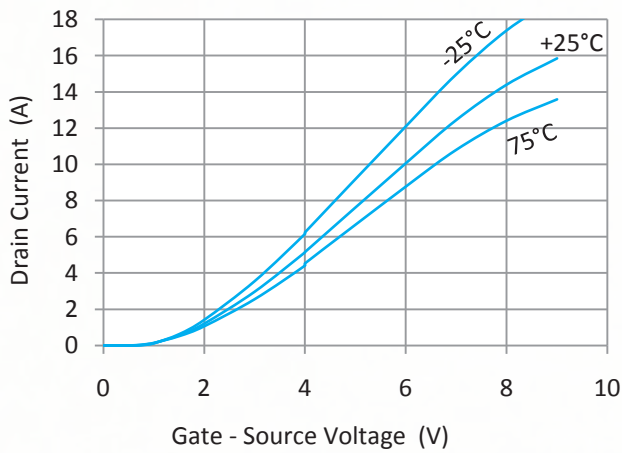
Typical Output Characteristics



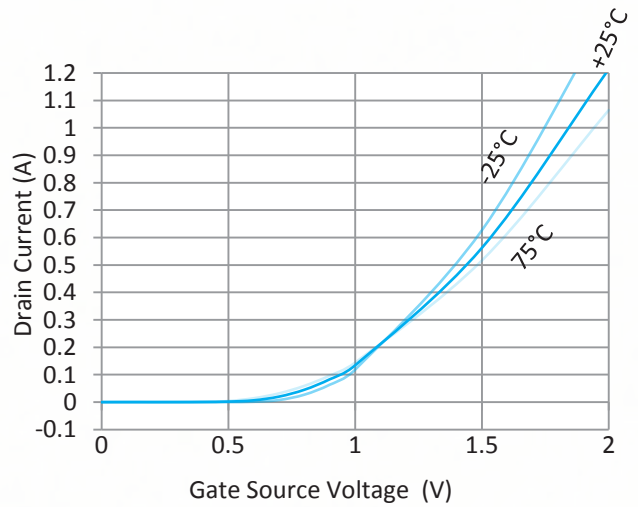
Typical Output Characteristics



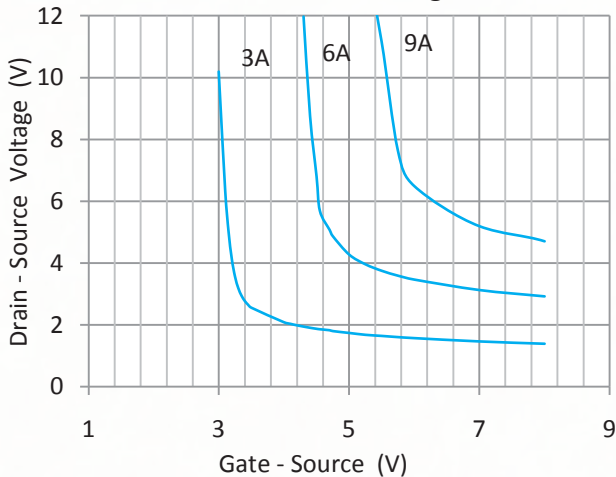
Transfer Characteristics



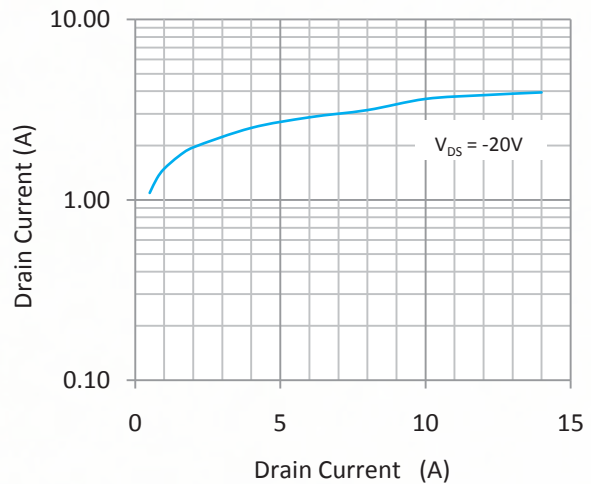
Transfer Characteristic



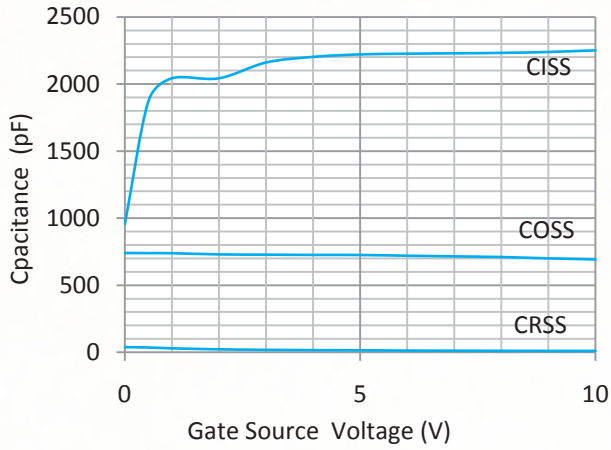
Drain-Source Voltage vs Gate-Source Voltage



Transconductance



Typical Capacitance vs Gate -Source Voltage (V)



Forward Bias Safe Operating Area

