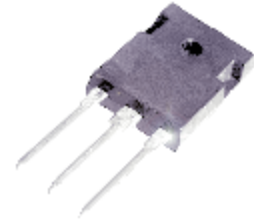




N Channel Lateral Mosfet

- Designed specifically for linear audio amplifier applications
- High-speed for high bandwidth amplifiers
- Reduced $V_{ds\ sat}$
- High voltage rating - 200V
- TO-247 plastic package
- Enhanced oscillation suppression in multi-device applications
- Complementary P-channel available – ECX10P20R



ABSOLUTE MAXIMUM RATINGS

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

V_{DSS}	Drain – Source Voltage	200V
V_{GSS}	Gate – Source Voltage	+/- 14V
I_D	Continuous Drain Current	8A
I_{DR}	Body Drain Diode Current	8A
P_D	Allowable Power Dissipation* $T_{case} = 25^\circ\text{C}$	125W
T_{ch}	Channel Temperature	150°C
T_{stg}	Storage Temperature Range	-55 to +150°C

*Thermal Resistance, Junction To Case

1.0 deg/watt



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	$V_{GS} = 10\text{V}$ $I_D = 10\text{mA}$	200			V
$V_{GS(off)}$	Gate-Source Cut-off Voltage	$V_{DS} = 10\text{V}$ $I_D = 100\text{mA}$	0.15		1.5	V
$V_{DS(sat)}^*$	Drain-Source Saturation Voltage	$V_{GD} = 0$ $I_D = 8\text{A}$			10	V
$ y_{fs} ^*$	Forward Transfer Admittance	$V_{DS} = 10\text{V}$ $I_{DS} = 3\text{A}$	0.7		2	S(Ω)
I_{DSX}	Drain-Source Cut-Off Current	$V_{GS} = 10\text{V}$ $V_{DS} = 200\text{V}$			10	mA

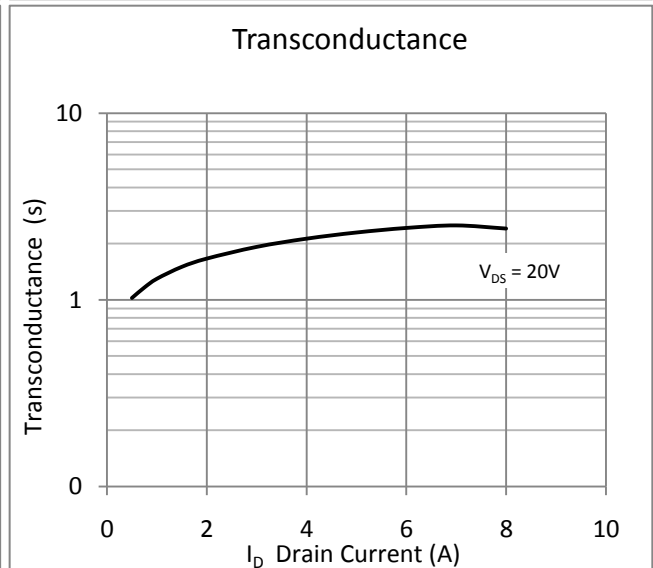
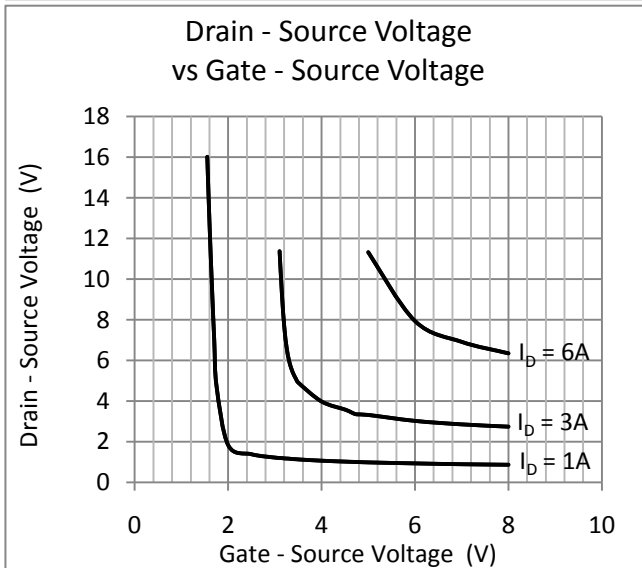
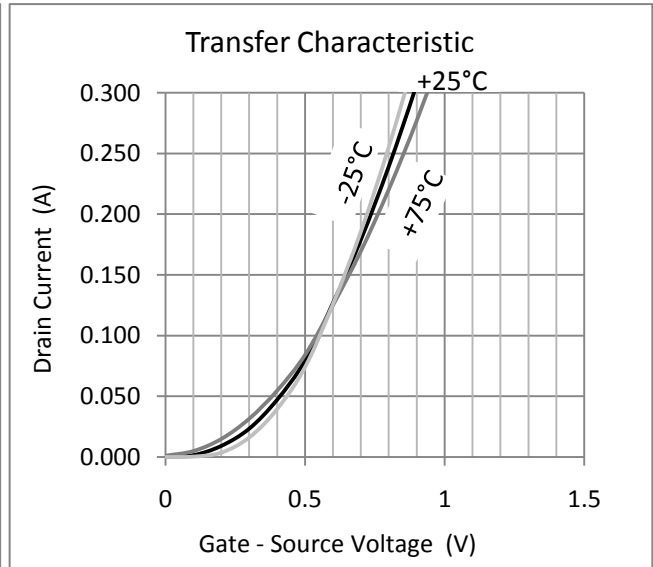
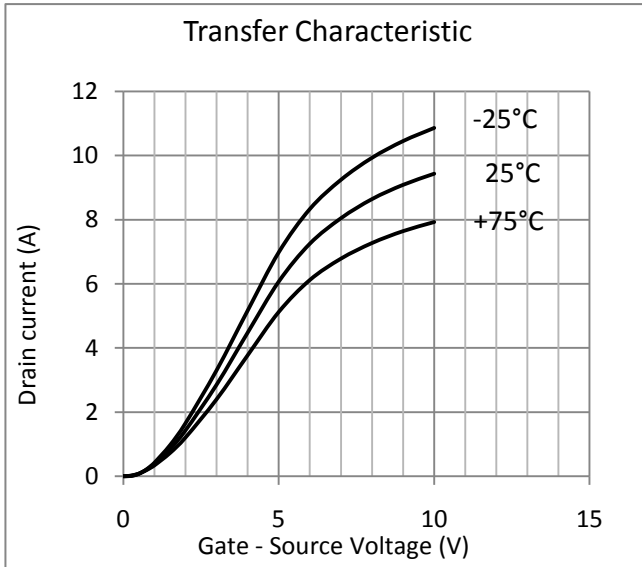
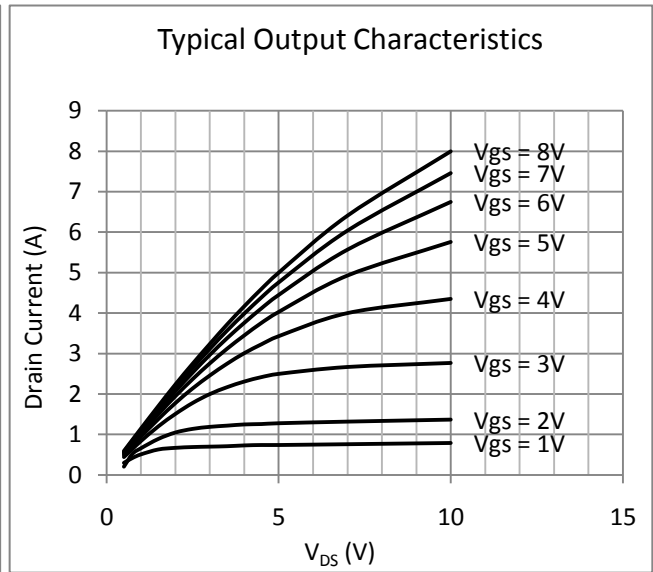
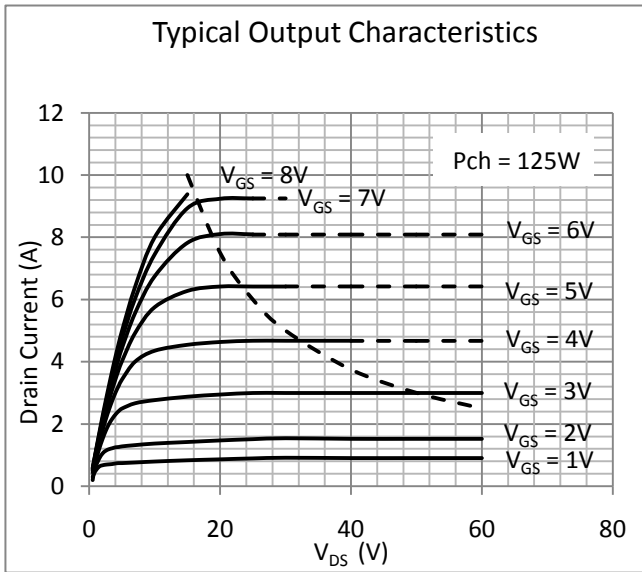
* Pulse Test: Pulse Width = $300\mu\text{s}$, Duty Cycle $\leq 2\%$

DYNAMIC CHARACTERISTICS

C_{iss}	Input Capacitance	$V_{GS} = 0$		500		pF
C_{oss}	Output Capacitance	$V_{DS} = 10\text{V}$		300		
C_{rss}	Reverse Transfer Capacitance	$f = 1.0\text{MHz}$		10		
t_{on}	Turn-On Time	$V_{DS} = 20\text{V}$		100		ns
t_{off}	Turn-Off Time	$I_D = 7\text{A}$		50		

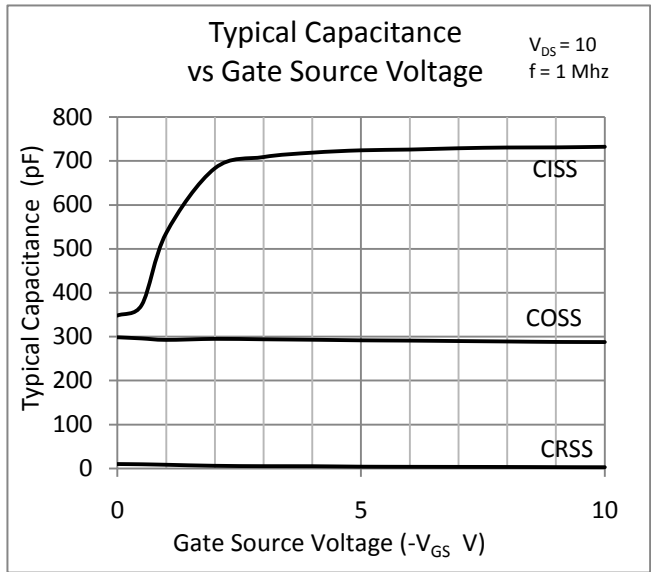
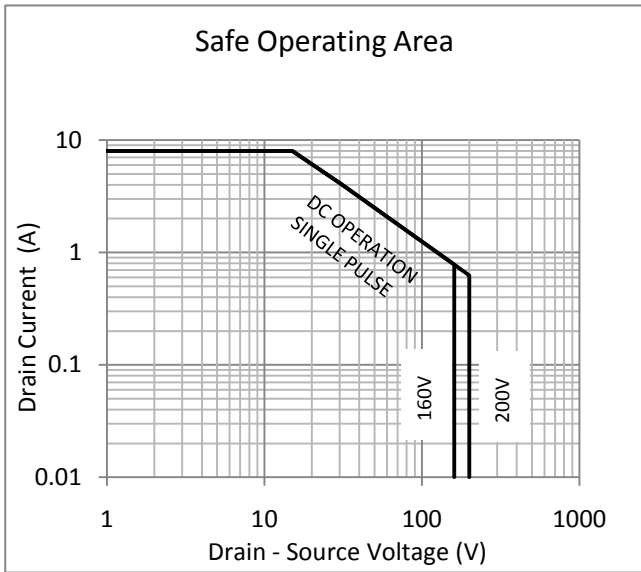


GENERAL CHARACTERISTICS ($T_C = 25^\circ\text{C}$ unless otherwise stated)



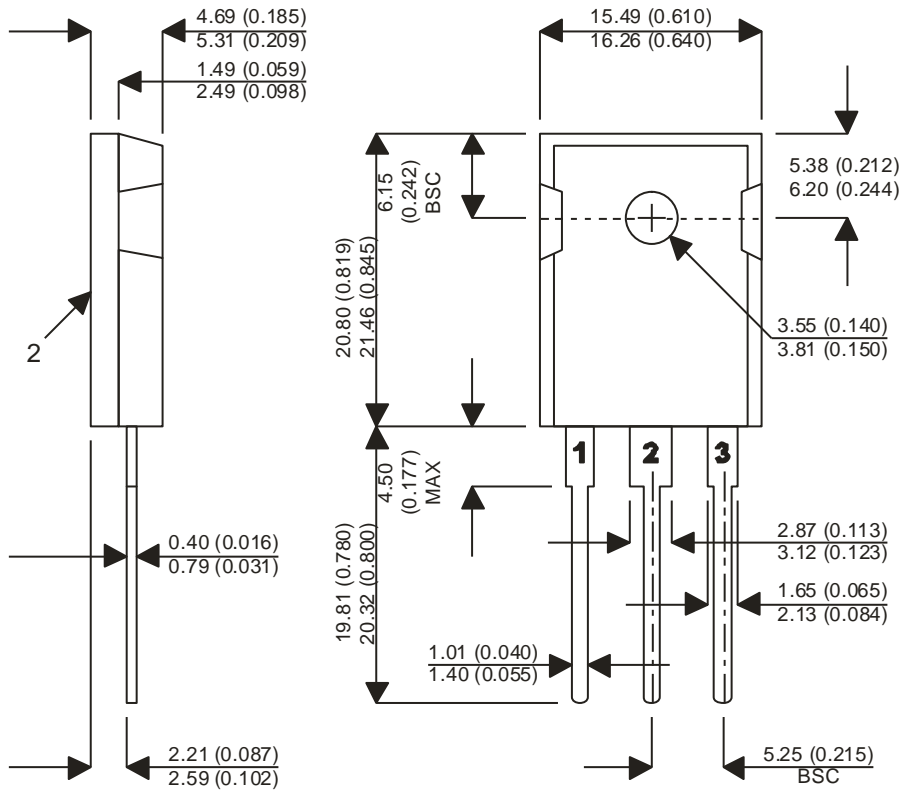


GENERAL CHARACTERISTICS CONTINUED ($T_C = 25^\circ\text{C}$ unless otherwise stated)



MECHANICAL DATA

Dimensions in mm (Inches)



TO-247

Pin 1 - Gate Pin 2 -Source Pin 3 - Drain

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