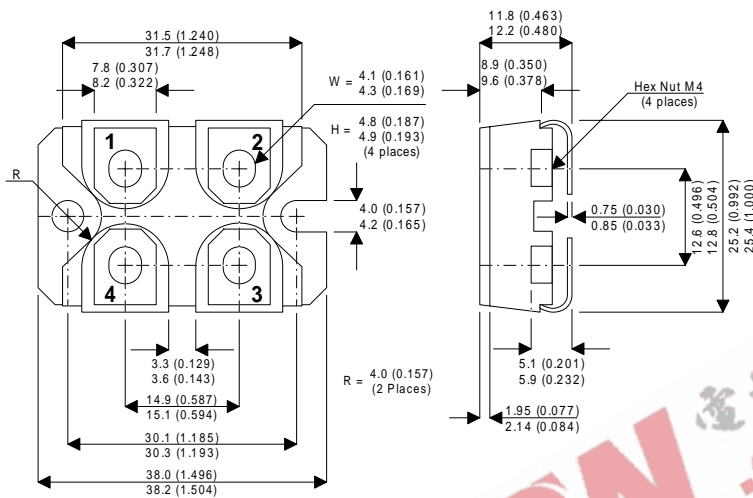


**MECHANICAL DATA**

Dimensions in mm (inches)

**P-CHANNEL  
POWER MOSFET**

**POWER MOSFETS FOR  
AUDIO APPLICATIONS**



**SOT227**  
 Pin 1 – Drain  
 Pin 2 – Source  
 Pin 3 – Gate  
 Pin 4 – Drain

**FEATURES**

- HIGH SPEED SWITCHING
- P-CHANNEL POWER MOSFET
- SEMEFAB DESIGNED AND DIFFUSED
- HIGH VOLTAGE (160V & 200V)
- HIGH ENERGY RATING
- ENHANCEMENT MODE
- INTEGRAL PROTECTION DIODE
- N-CHANNEL ALSO AVAILABLE

**ABSOLUTE MAXIMUM RATINGS**

(T<sub>case</sub> = 25°C unless otherwise stated)

		<b>BUZ905X4S</b>	<b>BUZ906X4S</b>
V <sub>DSX</sub>	Drain – Source Voltage	-160V	-200V
V <sub>GS</sub>	Gate – Source Voltage		±14V
I <sub>D</sub>	Continuous Drain Current		-32A
I <sub>D(PK)</sub>	Body Drain Diode		-32A
P <sub>D</sub>	Total Power Dissipation @ T <sub>case</sub> = 25°C		500W
T <sub>stg</sub>	Storage Temperature Range		-55 to 150°C
T <sub>j</sub>	Maximum Operating Junction Temperature		150°C
R <sub>θJC</sub>	Thermal Resistance Junction – Case		0.3°C/W

**ELECTRICAL RATINGS** ( $T_{case} = 25^{\circ}C$  unless otherwise stated)

	Characteristic	Test Conditions	Min.	Typ.	Max.	Unit
$BV_{DSX}$	Drain – Source Breakdown Voltage	$V_{GS} = 10V$ $I_D = -10mA$	-160 -200			V
$BV_{GSS}$	Gate – Source Breakdown Voltage	$V_{DS} = 0$ $I_G = \pm 100\mu A$	$\pm 14$			V
$V_{GS(OFF)}$	Gate – Source Cut-Off Voltage	$V_{DS} = -10V$ $I_D = -100mA$	-0.1		-1.5	V
$V_{DS(SAT)}^*$	Drain – Source Saturation Voltage	$V_{GD} = 0$ $I_D = -32A$			-12	V
$I_{DSX}$	Drain – Source Cut-Off Current	$V_{GS} = 10V$ $V_{DS} = -160V$ $V_{DS} = -200V$			-10 -10	mA mA
$y_{fs}^*$	Forward Transfer Admittance	$V_{DS} = -10V$ $I_D = -5A$	2		6	S
$C_{iss}$	Input Capacitance			TBE		pF
$C_{oss}$	Output Capacitance	$V_{DS} = -10V$ $f = 1MHz$		TBE		
$C_{rss}$	Reverse Transfer Capacitance			TBE		
$t_{on}$	Turn-on Time	$V_{DS} = -20V$ $I_D = -7A$		TBE		nS
$t_{off}$	Turn-off Time			TBE		

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

