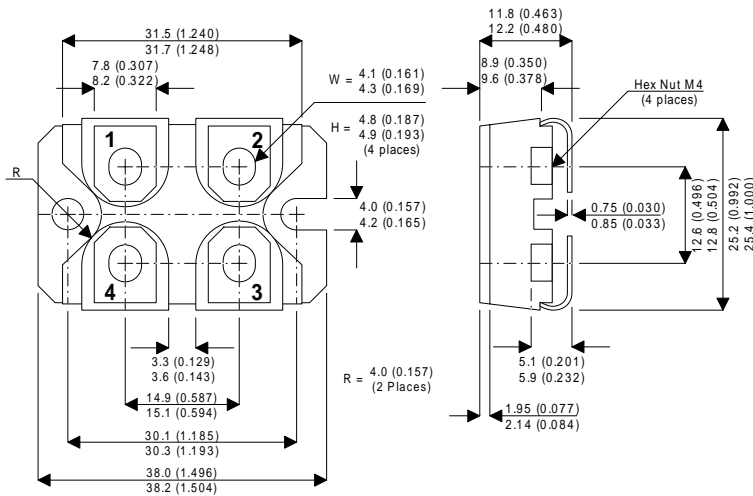


**MECHANICAL DATA**

Dimensions in mm (inches)

**N-CHANNEL  
POWER MOSFET**

**POWER MOSFETS FOR  
AUDIO APPLICATIONS**



**FEATURES**

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

**SOT227**

- Pin 1 – Drain
- Pin 2 – Source
- Pin 3 – Gate
- Pin 4 – Drain

**ABSOLUTE MAXIMUM RATINGS**

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

		<b>BUZ900X4S</b>	<b>BUZ901X4S</b>
$V_{DSX}$	Drain – Source Voltage	160V	200V
$V_{GS}$	Gate – Source Voltage	$\pm 14V$	
$I_D$	Continuous Drain Current	32A	
$I_{D(PK)}$	Body Drain Diode	32A	
$P_D$	Total Power Dissipation @ $T_{case} = 25^{\circ}C$	500W	
$T_{stg}$	Storage Temperature Range	$-55$ to $150^{\circ}C$	
$T_j$	Maximum Operating Junction Temperature	$150^{\circ}C$	
$R_{\theta JC}$	Thermal Resistance Junction – Case	$0.3^{\circ}C/W$	

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

	Characteristic	Test Conditions		Min.	Typ.	Max.	Unit
BV <sub>DSX</sub>	Drain – Source Breakdown Voltage	V <sub>GS</sub> = -10V	BUZ900X4S	160			V
		I <sub>D</sub> = 10mA	BUZ901X4S	200			
BV <sub>GSS</sub>	Gate – Source Breakdown Voltage	V <sub>DS</sub> = 0	I <sub>G</sub> = ±100µA	±14			V
V <sub>GS(OFF)</sub>	Gate – Source Cut-Off Voltage	V <sub>DS</sub> = 10V	I <sub>D</sub> = 100mA	0.1		1.5	V
V <sub>DS(SAT)</sub> *	Drain – Source Saturation Voltage	V <sub>GD</sub> = 0	I <sub>D</sub> = 32A			12	V
I <sub>DSX</sub>	Drain – Source Cut-Off Current	V <sub>GS</sub> = -10V				10	mA
		V <sub>DS</sub> = 160V	BUZ900X4S			10	
		V <sub>DS</sub> = 200V	BUZ901X4S				
y <sub>fs</sub> *	Forward Transfer Admittance	V <sub>DS</sub> = 10V	I <sub>D</sub> = 5A	2		6	S
C <sub>iss</sub>	Input Capacitance				TBE		pF
C <sub>oss</sub>	Output Capacitance	V <sub>DS</sub> = 10V	f = 1MHz		TBE		
C <sub>rss</sub>	Reverse Transfer Capacitance				TBE		
t <sub>on</sub>	Turn-on Time	V <sub>DS</sub> = 20V	I <sub>D</sub> = 7A		TBE		nS
t <sub>off</sub>	Turn-off Time				TBE		

\* Pulse Test: Pulse Width = 300µS , Duty Cycle ≤ 2%

