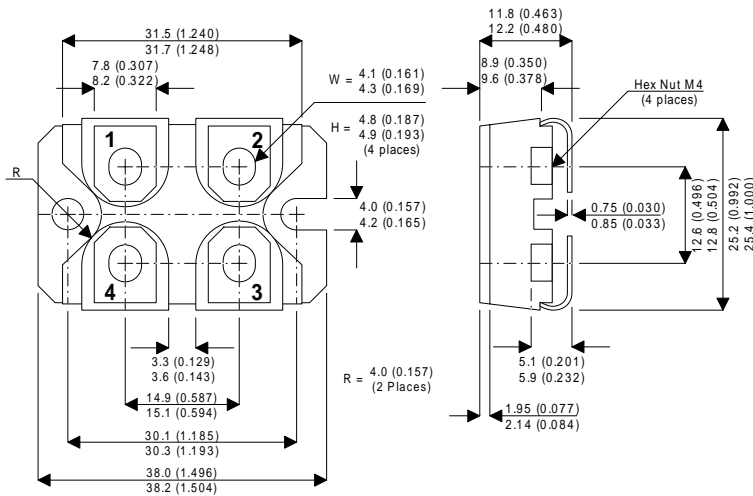


MECHANICAL DATA

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)

		BUZ900X4S	BUZ901X4S
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_{DSX}	Drain – Source Breakdown Voltage	$V_{GS} = -10V$ $I_D = 10mA$	BUZ900X4S BUZ901X4S	160 200			V
BV_{GSS}	Gate – Source Breakdown Voltage	$V_{DS} = 0$	$I_G = \pm 100\mu A$	± 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	$V_{GS} = -10V$ $V_{DS} = 160V$ $V_{DS} = 200V$	BUZ900X4S BUZ901X4S			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_{riss}	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 $\leq 2\%$

