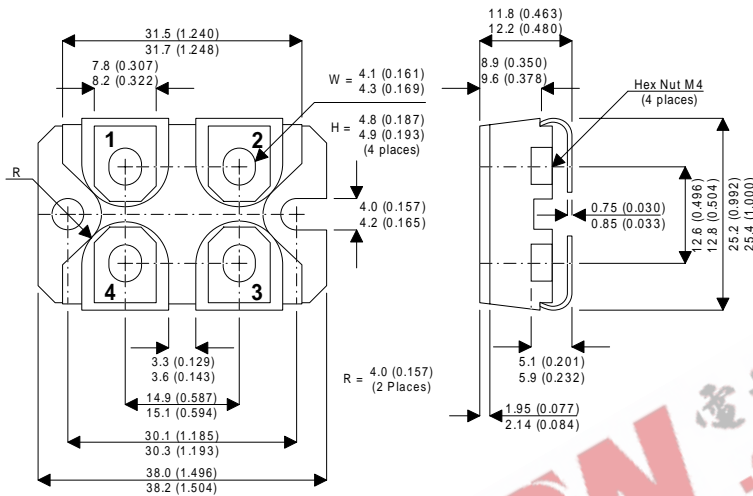


MECHANICAL DATA

Dimensions in mm (inches)

**P-CHANNEL
POWER MOSFET**

**POWER MOSFETS FOR
AUDIO APPLICATIONS**



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

SOT227

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

ABSOLUTE MAXIMUM RATINGS

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

		BUZ905X4S	BUZ906X4S
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°C
T_j	Maximum Operating Junction Temperature		150°C
$R_{\theta JC}$	Thermal Resistance Junction – Case		0.3°C/W

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

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

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

