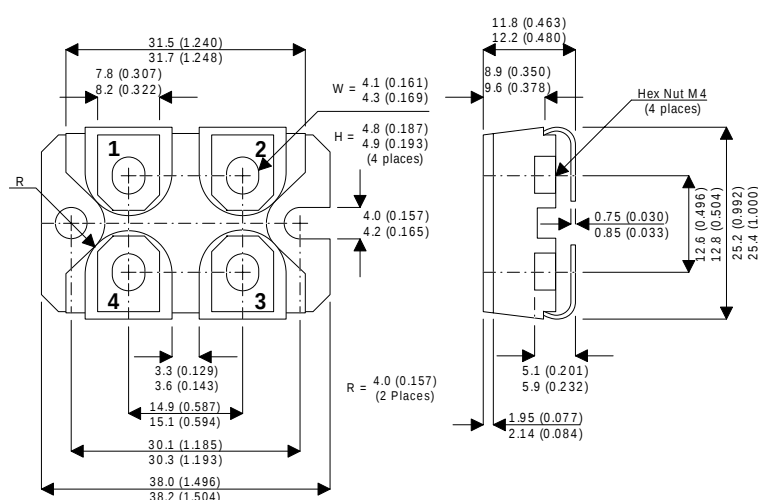


MECHANICAL DATA

Dimensions in mm (inches)



SOT227

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

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

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

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

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

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

