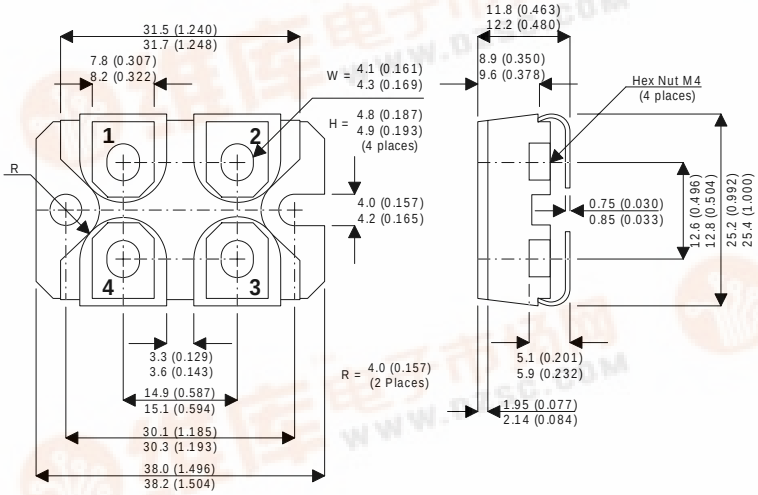
MAGNA TEC

BUZ905X4S
BUZ906X4S

NEW PRODUCT UNDER DEVELOPMENT

MECHANICAL DATA
Dimensions in mm (inches)

P–CHANNEL POWER MOSFET



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

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°C unless otherwise stated)

			BUZ905X4S	BUZ906X4S
V_{DSX}	Drain – Source Voltage		–160V	–200V
V_{GS}	Gate – Source Voltage		±14V	
I_D	Continuous Drain Current		–32A	
$I_{D(PK)}$	Body Drain Diode		–32A	
P_D	Total Power Dissipation	@ T_{case} = 25°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	

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ELECTRICAL RATINGS (T_{case} = 25°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 = ±100µA	±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
yfs*	Forward Transfer Admittance	V_{DS} = –10V	I_D = –5A	2		6	S
C_{iss}	Input Capacitance	V_{DS} = –10V	f = 1MHz		TBE		pF
C_{oss}	Output Capacitance	V_{DS} = –10V	f = 1MHz		TBE		pF
C_{rss}	Reverse Transfer Capacitance	V_{DS} = –10V	f = 1MHz		TBE		pF
t_{on}	Turn–on Time	V_{DS} = –20V	I_D = –7A		TBE		nS
t_{off}	Turn-off Time	V_{DS} = –20V	I_D = –7A		TBE		nS

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