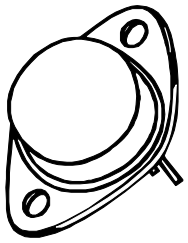
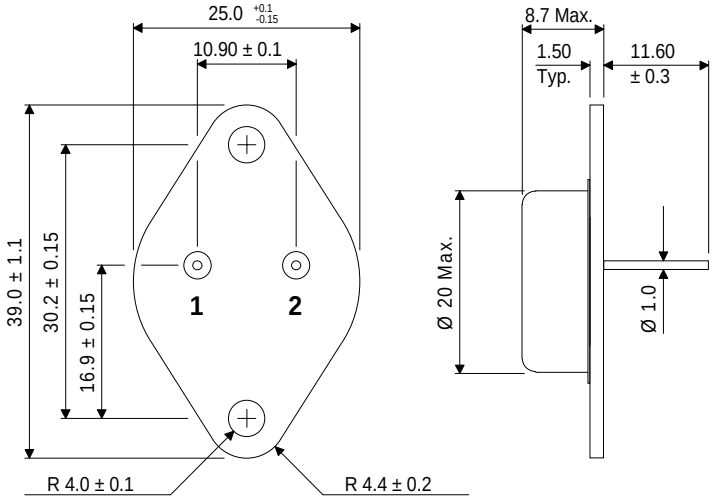
MAGNA TEC



BUZ902
BUZ903

MECHANICAL DATA
Dimensions in mm



TO–3

Pin 1 – Gate Pin 2 – Drain Case – Source

N–CHANNEL POWER MOSFET

POWER MOSFETS FOR AUDIO APPLICATIONS

FEATURES

- **HIGH SPEED SWITCHING**
- **SEMEFAB DESIGNED AND DIFFUSED**
- **HIGH VOLTAGE (220V & 250V)**
- **HIGH ENERGY RATING**
- **ENHANCEMENT MODE**
- **INTEGRAL PROTECTION DIODES**
- **COMPLIMENTARY P–CHANNEL BUZ907 & BUZ908**

ABSOLUTE MAXIMUM RATINGS

(T_{case} = 25°C unless otherwise stated)

			BUZ902	BUZ903
V_{DSX}	Drain – Source Voltage		220V	250V
V_{GSS}	Gate – Source Voltage		±14V	
I_D	Continuous Drain Current		8A	
$I_{D(PK)}$	Body Drain Diode		8A	
P_D	Total Power Dissipation	@ T_{case} = 25°C	125W	
T_{stg}	Storage Temperature Range		–55 to 150°C	
T_j	Maximum Operating Junction Temperature		150°C	
$R_{\theta JC}$	Thermal Resistance Junction – Case		1°C/W	

MAGNA TEC

BUZ902
BUZ903

STATIC CHARACTERISTICS (T_{case} = 25°C unless otherwise stated)

	Characteristic	Test Conditions		Min.	Typ.	Max.	Unit
BV_{DSX}	Drain – Source Breakdown Voltage	V_{GS} = -10V	BUZ902	220			V
		I_D = 10mA	BUZ903	250			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	0.15		1.5	V
$V_{DS(SAT)}$*	Drain – Source Saturation Voltage	V_{GD} = 0	I_D = 8A			12	V
$R_{DS(on)}$*	Static – Source Resistance	V_{GS} = 10	I_D = 8A			1.5	Ω
I_{DSX}	Drain – Source Cut–Off Current	V_{GS} = -10V	V_{DS} = 220V BUZ902			10	mA
			V_{DS} = 250V BUZ903			10	mA
yfs*	Forward Transfer Admittance	V_{DS} = 10V	I_D = 3A	0.7		2	S

DYNAMIC CHARACTERISTICS (T_{case} = 25°C unless otherwise stated)

	Characteristic	Test Conditions	Min.	Typ.	Max.	Unit
C_{iss}	Input Capacitance	V_{DS} = 10V f = 1MHz		TBA		pF
C_{oss}	Output Capacitance			TBA		
C_{rss}	Reverse Transfer Capacitance			TBA		
t_{on}	Turn–on Time	V_{DS} = 20V I_D = 5A		TBA		ns
t_{off}	Turn-off Time			TBA		

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