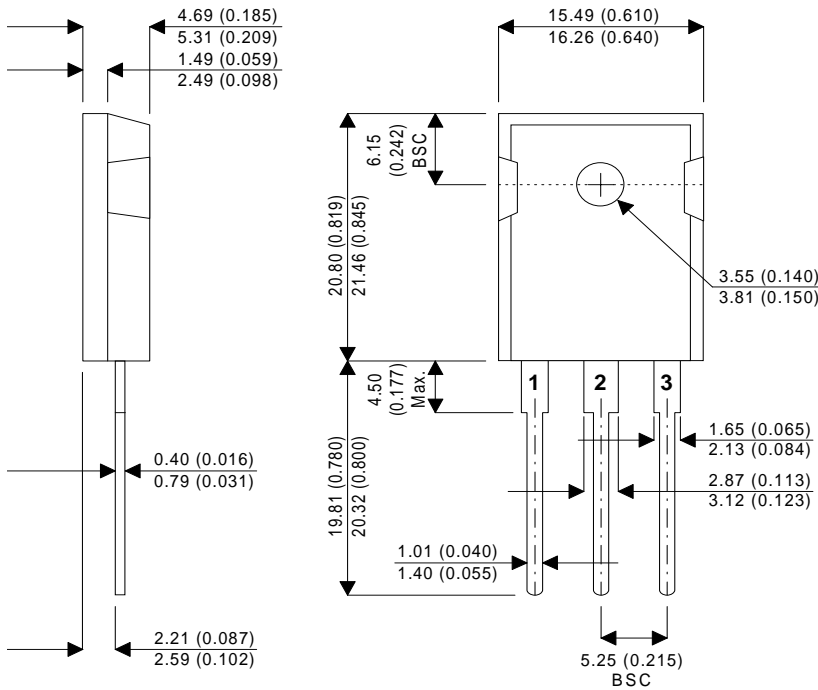


MECHANICAL DATA
Dimensions in mm



TO-247

Pin 1 – Gate

Pin 2 – Source

Pin 3 – 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 BUZ907P & BUZ908P

ABSOLUTE MAXIMUM RATINGS

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

		BUZ902P	BUZ903P
V_{DSX}	Drain – Source Voltage	220V	250V
V_{GSS}	Gate – Source Voltage	$\pm 14V$	
I_D	Continuous Drain Current	8A	
$I_{D(PK)}$	Body Drain Diode	8A	
P_D	Total Power Dissipation @ $T_{case} = 25^{\circ}C$	125W	
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	$1^{\circ}C/W$	

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

Characteristic	Test Conditions		Min.	Typ.	Max.	Unit
BV _{DSX} Drain – Source Breakdown Voltage	V _{GS} = -10V I _D = 10mA	BUZ902P	220			V
		BUZ903P	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 BUZ902P			10	mA
		V _{DS} = 250V BUZ903P			10	mA
y _{fs} * Forward Transfer Admittance	V _{DS} = 10V	I _D = 3A	0.7		2	S

DYNAMIC CHARACTERISTICS ($T_{case} = 25^{\circ}C$ 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%.

