

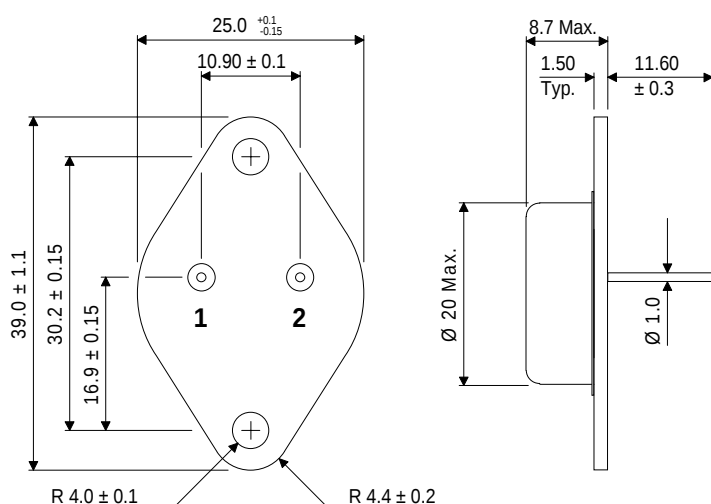
BUZ902D
BUZ903D

MECHANICAL DATA

Dimensions in mm

N-CHANNEL POWER MOSFET

POWER MOSFETS FOR AUDIO APPLICATIONS



TO-3

Pin 1 – Gate

Pin 2 – Drain

Case – Source

FEATURES

- HIGH SPEED SWITCHING
- SEMEFAB DESIGNED AND DIFFUSED
- HIGH VOLTAGE (220V & 250V)
- HIGH ENERGY RATING
- ENHANCEMENT MODE
- INTEGRAL PROTECTION DIODES
- COMPLIMENTARY P-CHANNEL BUZ907D & BUZ908D

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ABSOLUTE MAXIMUM RATINGS

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

		BUZ902D	BUZ903D
V_{DSX}	Drain – Source Voltage	220V	250V
V_{GSS}	Gate – Source Voltage	$\pm 14\text{V}$	
I_D	Continuous Drain Current	16A	
$I_{D(PK)}$	Body Drain Diode	16A	
P_D	Total Power Dissipation @ $T_{case} = 25^{\circ}\text{C}$	250W	
T_{stg}	Storage Temperature Range	-55 to 150°C	
T_j	Maximum Operating Junction Temperature	150°C	
$R_{\theta JC}$	Thermal Resistance Junction – Case	0.5°C/W	

BUZ902D BUZ903D

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 I _D = 10mA	BUZ902D	220			V
		BUZ903D	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	0.10		1.5	V
V _{DS(SAT)} * Drain – Source Saturation Voltage	V _{GD} = 0	I _D = 16A			12	V
R _{DS(on)} * Static – Source Resistance	V _{GS} = 10	I _D = 16A			0.75	Ω
I _{DSX} Drain – Source Cut-Off Current	V _{GS} = -10V	V _{DS} = 220V BUZ902D			10	mA
		V _{DS} = 250V BUZ903D			10	mA
yfs* Forward Transfer Admittance	V _{DS} = 10V	I _D = 3A	1.4		4	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		TBA		ns
t _{off} Turn-off Time	I _D = 7A		TBA		

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

