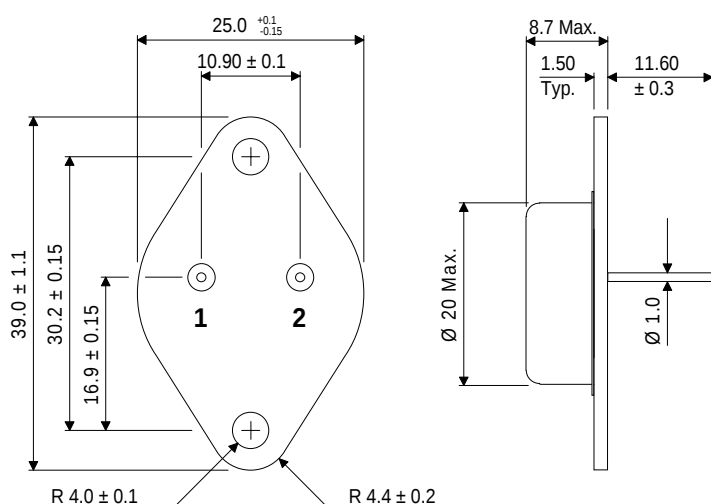


MECHANICAL DATA

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
- N-CHANNEL POWER MOSFET
- SEMEFAB DESIGNED AND DIFFUSED
- HIGH VOLTAGE (160V & 200V)
- HIGH ENERGY RATING
- ENHANCEMENT MODE
- INTEGRAL PROTECTION DIODE
- P-CHANNEL ALSO AVAILABLE AS BUZ905D & BUZ906D
- DOUBLE DIE PACKAGE FOR MAXIMUM POWER AND HEATSINK SPACE

ABSOLUTE MAXIMUM RATINGS

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

		BUZ900D	BUZ901D
V _{DSX}	Drain – Source Voltage	160V	200V
V _{GSS}	Gate – Source Voltage	±14V	
I _D	Continuous Drain Current	16A	
I _{D(PK)}	Body Drain Diode	16A	
P _D	Total Power Dissipation @ T _{case} = 25°C	250W	
T _{stg}	Storage Temperature Range	–55 to 150°C	
T _j	Maximum Operating Junction Temperature	150°C	
R _{θJC}	Thermal Resistance Junction – Case	0.5°C/W	

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	BUZ900D	160			V
		BUZ901D	200			
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 = 16A			12	V
I _{DSX} Drain – Source Cut-Off Current	V _{GS} = –10V	V _{DS} = 160V BUZ900D			10	mA
		V _{DS} = 200V BUZ901D			10	
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		950		pF
C _{oss} Output Capacitance			550		
C _{rss} Reverse Transfer Capacitance			18		
t _{on} Turn-on Time	V _{DS} = 20V I _D = 7A		160		ns
t _{off} Turn-off Time			80		

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

