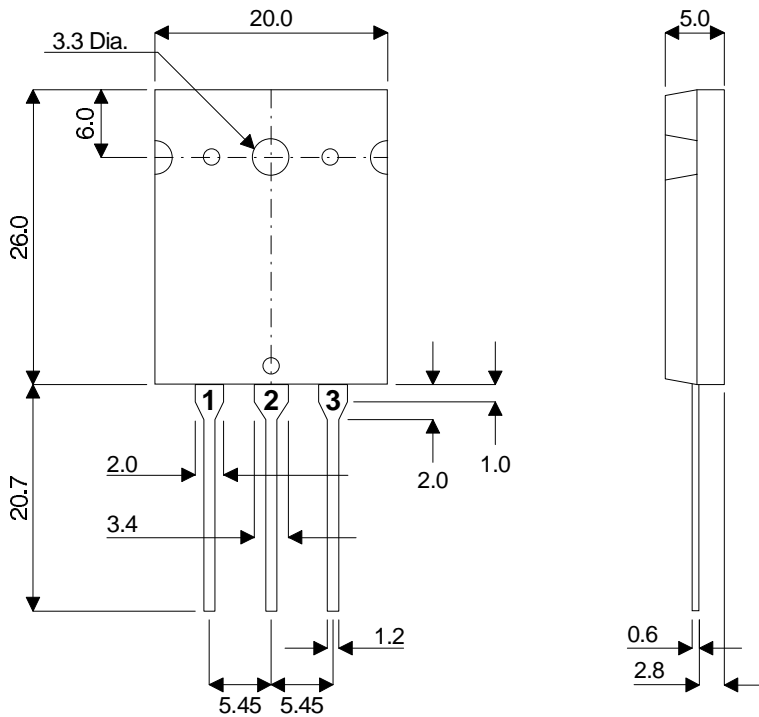


MECHANICAL DATA
Dimensions in mm



TO-3PBL

Pin 1 – Gate

Pin 2 – Source
Case is Source

Pin 3 – Drain

P-CHANNEL
POWER MOSFET

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 AS BUZ900DP & BUZ901DP
- DOUBLE DIE PACKAGE FOR MAXIMUM POWER AND HEATSINK SPACE

ABSOLUTE MAXIMUM RATINGS

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

| | | BUZ905DP | BUZ906DP |
|-----------------|--|-----------------|-----------------|
| V_{DSX} | Drain – Source Voltage | -160V | -200V |
| V_{GSS} | Gate – Source Voltage | $\pm 14V$ | |
| I_D | Continuous Drain Current | -16A | |
| $I_{D(PK)}$ | Body Drain Diode | -16A | |
| P_D | Total Power Dissipation @ $T_{case} = 25^{\circ}C$ | 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 | |

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 | BUZ905DP | -160 | | | V |
| | | I _D = -10mA | BUZ906DP | -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 BUZ905DP | | | -10 | mA |
| | | | V _{DS} = -200V BUZ906DP | | | -10 | |
| yfs* | Forward Transfer Admittance | V _{DS} = -10V | I _D = -3A | 1.4 | | 4 | 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 | | | 1900 | | pF |
| C _{oss} | Output Capacitance | | | | 900 | | |
| C _{rSS} | Reverse Transfer Capacitance | | | | 60 | | |
| t _{on} | Turn-on Time | V _{DS} = 20V I _D = 7A | | | 150 | | ns |
| t _{off} | Turn-off Time | | | | 110 | | |

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

