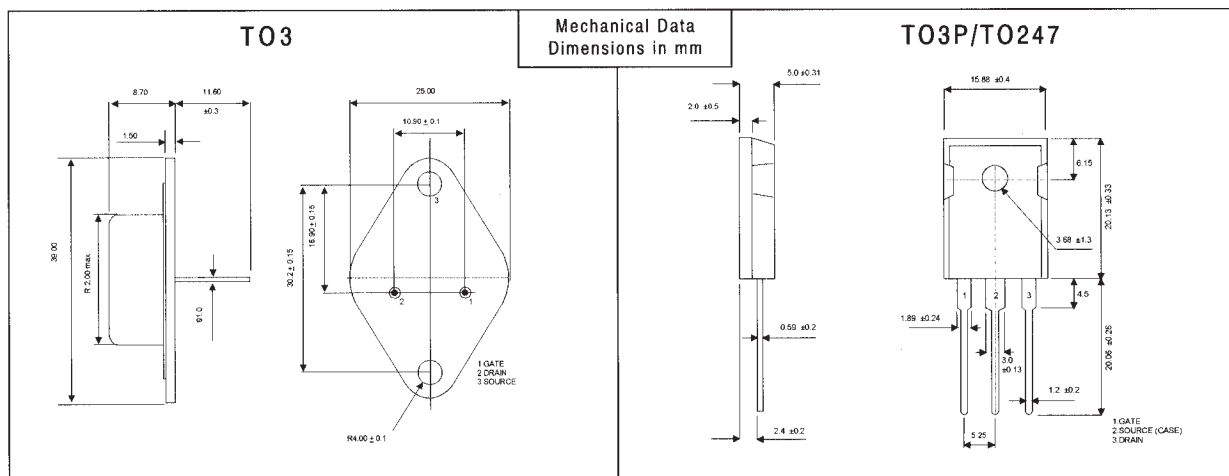


**HIGH POWER 125W
HIGH QUALITY AUDIO AMPLIFIER APPLICATIONS**



| ABSOLUTE MAXIMUM RATING (T case = 25°C unless otherwise stated) | | (EC-10)16 | (EC-10)20 |
|---|---|--------------|-----------|
| V _{DSX} | Drain - Source Voltage | 160V | 200V |
| V _{GSS} | Gate - Source Voltage | ±14V | |
| I _D | Continuous Drain Current | 8 A | |
| I _{D(PK)} | Body Drain Diode | 8 A | |
| 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 | |
| RθJC | Thermal Resistance Junction - case | 1.0°C/W | |

STATIC CHARACTERISTICS (T case = 25°C unless otherwise stated)

| Characteristic | | Test Conditions | | MIN | TYP | MAX | UNIT |
|-----------------------|-----------------------------------|-----------------|-------------------------|------|-----|-----|------|
| BV _{DSX} | Drain - Source Breakdown Voltage | VGS = -10V | (EC-10)16 | 160 | | | V |
| | | ID = 10mA | (EC-10)20 | 200 | | | V |
| BV _{GSS} | Gate - Source Breakdown Voltage | VDS = 0 | IG = ±100uA | ±14 | | | V |
| V _{GS(OFF)} | Gate-Source Cut-Off Voltage | VDS = 10V | ID = 100mA | 0.15 | | 1.5 | V |
| V _{DS(SAT)*} | Drain - Source Saturation Voltage | VGD = 0 | ID = 8A | | | 12 | V |
| ID _{SDX} | Drain - Source Cut - Off Current | VGS = -10V | VDS = 160V (EC-10)16 | | | 10 | mA |
| | | | VDS =200V (EC-10)20 | | | 10 | |
| Yfs* | Forward Transfer Admittance | VDS = 10V | ID = 3A | 0.7 | | 2 | S |

DYNAMIC CHARACTERISTICS (T case = 25°C unless otherwise stated)

| Characteristic | | Test Conditions | N-Channel | P-Channel | UNIT |
|------------------|------------------------------|------------------------------------|-----------|-----------|------|
| C _{iss} | Input Capacitance | V _{DS} = 10V f = 1 MHz | 500 | 700 | pF |
| C _{oss} | Output Capacitance | | 300 | 300 | |
| C _{rss} | Reverse Transfer Capacitance | | 10 | 25 | |
| t _{on} | Turn-on Time | V _{DS} = 20V | 100 | 120 | ns |
| t _{off} | Turn-off Time | I _D = 5A | 50 | 60 | |

*Pulse Test: Pulse width = 300uS, Duty Cycle $\leq 2\%$