

**FEATURES**

- Drain Current :  $I_D = 7.8A @ T_C = 25^\circ C$
- Drain Source Voltage  
:  $V_{DSS} = 800V(\text{Min})$
- Static Drain-Source On-Resistance  
:  $R_{DS(on)} = 1.2 \Omega (\text{Max}) @ V_{GS} = 10V$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

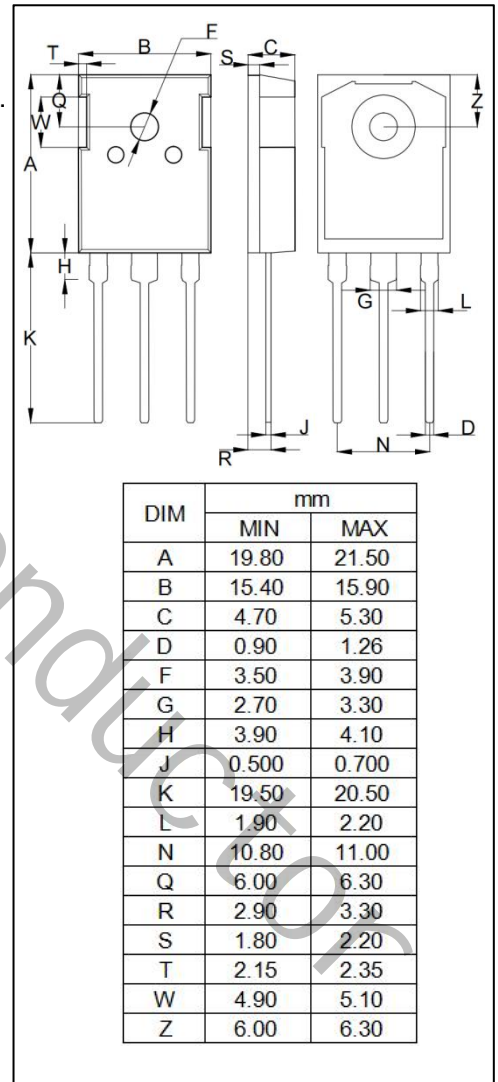
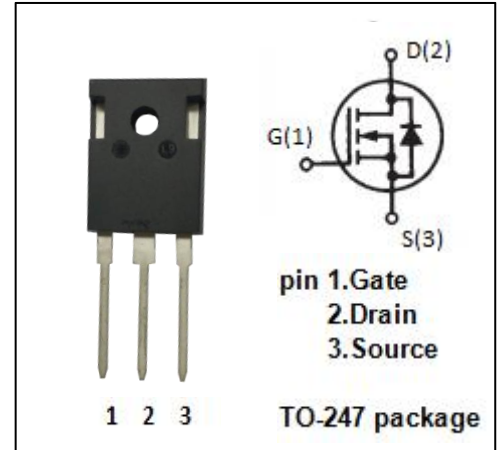
- Switching power supplies, converters, AC and DC motor controls.

**• ABSOLUTE MAXIMUM RATINGS ( $T_a = 25^\circ C$ )**

| SYMBOL    | PARAMETER                              | VALUE    | UNIT       |
|-----------|--|----------|------------|
| $V_{DSS}$ | Drain-Source Voltage                   | 800      | V          |
| $V_{GS}$  | Gate-Source Voltage-Continuous         | $\pm 20$ | V          |
| $I_D$     | Drain Current-Continuous               | 7.8      | A          |
| $I_{DM}$  | Drain Current-Single Plused            | 31       | A          |
| $P_D$     | Total Dissipation @ $T_C = 25^\circ C$ | 190      | W          |
| $T_j$     | Max. Operating Junction Temperature    | -55~150  | $^\circ C$ |
| $T_{stg}$ | Storage Temperature                    | -55~150  | $^\circ C$ |

**• THERMAL CHARACTERISTICS**

| SYMBOL          | PARAMETER                            | MAX  | UNIT         |
|-----------------|--------------------------------------|------|--------------|
| $R_{th j-c}$    | Thermal Resistance, Junction to Case | 0.65 | $^\circ C/W$ |
| $R_{\theta JA}$ | Junction-to-Ambient                  | 40   | $^\circ C/W$ |



**ELECTRICAL CHARACTERISTICS**

 T<sub>c</sub>=25°C unless otherwise specified

| SYMBOL               | PARAMETER                       | CONDITIONS  | MIN | MAX  | UNIT |
|----------------------|---------------------------------|---|-----|------|------|
| V <sub>(BR)DSS</sub> | Drain-Source Breakdown Voltage  | V <sub>GS</sub> = 0; I <sub>D</sub> = 0.25mA                | 800 |      | V    |
| V <sub>GS(th)</sub>  | Gate Threshold Voltage          | V <sub>DS</sub> = V <sub>GS</sub> ; I <sub>D</sub> = 0.25mA | 2   | 4    | V    |
| R <sub>DS(on)</sub>  | Drain-Source On-Resistance      | V <sub>GS</sub> = 10V; I <sub>D</sub> = 4.7A                |     | 1.2  | Ω    |
| I <sub>GSS</sub>     | Gate-Body Leakage Current       | V <sub>GS</sub> = ±20V; V <sub>DS</sub> = 0                 |     | ±100 | nA   |
| I <sub>DSS</sub>     | Zero Gate Voltage Drain Current | V <sub>DS</sub> = 800V; V <sub>GS</sub> =0                  |     | 100  | uA   |
| V <sub>SD</sub>      | Forward On-Voltage              | I <sub>S</sub> = 7.8A; V <sub>GS</sub> =0                   |     | 1.8  | V    |

Semi conductor