

INCHANGE SEMICONDUCTOR

isc N-Channel MOSFET Transistor

IPW60R099C7

IIPW60R099C7

• FEATURES

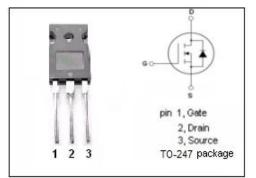
- Static drain-source on-resistance: $R_{DS}(on) \leqslant 99m_{\Omega}$
- · Enhancement mode:
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation
- DESCRITION
- Suitable for hard and soft switching

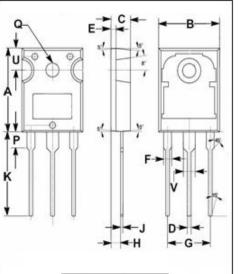
• ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

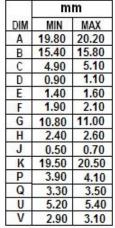
| SYMBOL | PARAMETER | VALUE | UNIT |
|------------------|-------------------------------------|---------|------|
| V _{DSS} | Drain-Source Voltage | 600 | V |
| V _{GS} | Gate-Source Voltage | ±20 | V |
| ID | Drain Current-Continuous | 22 | А |
| I _{DM} | Drain Current-Single Pulsed | 83 | А |
| PD | Total Dissipation @Tc=25°C | 110 | W |
| Tj | Max. Operating Junction Temperature | 150 | °C |
| T _{stg} | Storage Temperature | -55~150 | °C |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | МАХ | UNIT |
|----------|---------------------------------------|-------|--------------|
| Rth(j-c) | Channel-to-case thermal resistance | 1.135 | °C /W |
| Rth(j-a) | Channel-to-ambient thermal resistance | 62 | ℃ /W |









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ELECTRICAL CHARACTERISTICS

$T_{\text{C}}\text{=}25^\circ\!\!\mathbb{C}$ unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | ТҮР | МАХ | UNIT |
|---------------------|--------------------------------|---|-----|-----|-----|------|
| BV _{DSS} | Drain-Source Breakdown Voltage | V _{GS} =0V; I _D =1mA | 600 | | | V |
| $V_{GS(th)}$ | Gate Threshold Voltage | VDS=VGS; ID=0.49mA | 3 | | 4 | V |
| $R_{\text{DS(on)}}$ | Drain-Source On-Resistance | V _{GS} =10V; I _D =9.7A | | | 99 | mΩ |
| I _{GSS} | Gate-Source Leakage Current | V _{GS} = 20V; VDS=0V | | | 0.1 | μA |
| I _{DSS} | Drain-Source Leakage Current | V _{DS} =600V; V _{GS} = 0V | | | 1 | μA |
| V_{SD} | Diode forward voltage | I _F =9.7A, V _{GS} = 0V | | | | V |

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