

iscN-Channel MOSFET Transistor

IRFU214

• FEATURES

- Low drain-source on-resistance: R_{DS}(ON) ≤2.0Ω @V_{GS}=10V
- · Enhancement mode:
 - Vth = 2.0 to 4.0V (VDs = 10 V, ID=0.25mA)
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

DESCRITION

Switching Voltage Regulators

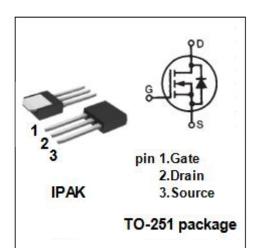
• ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

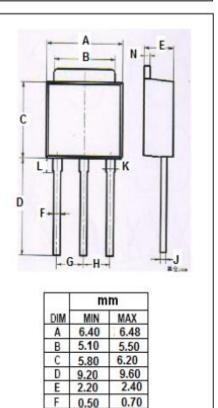
| SYMBOL | PARAMETER | VALUE | UNIT |
|------------------|--|---------|------|
| V _{DSS} | Drain-Source Voltage | 250 | V |
| V _{GS} | Gate-Source Voltage | ±20 | V |
| lo | Drain Current-Continuous | 2.2 | A |
| Ідм | Drain Current-Single Pulsed | 8.8 | A |
| P _D | Total Dissipation @T _c =25℃ | 25 | W |
| Tj | Max. Operating Junction Temperature | -55~150 | °C |
| T _{stg} | Storage Temperature -55~150 | | °C |
| | | | |

• THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | МАХ | UNIT |
|-----------|------------------------------------|-----|------|
| Rth(ch-c) | Channel-to-case thermal resistance | 5.0 | °C/W |

1





G

н

J

Ν

2.09

2.09

0.40

0.70

0.40

1.60

2.49

2.49

0.60

0.90

2.00

0.60



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ELECTRICAL CHARACTERISTICS

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

| SYMBOL | PARAMETER | CONDITIONS | MIN | ТҮР | МАХ | UNIT |
|----------------------|--------------------------------|---|-----|-----|-----------|------|
| BV _{DSS} | Drain-Source Breakdown Voltage | V _{GS} =0V; I _D = 0.25mA | 250 | | | V |
| V _{GS} (th) | Gate Threshold Voltage | V _{DS} = 10V; I _D =0.25mA | 2.0 | | 4.0 | V |
| R _{DS(on)} | Drain-Source On-Resistance | V _{GS} =10V; I _D =1.3A | | | 2.0 | Ω |
| lgss | Gate-Source Leakage Current | V _{GS} = ±20V;V _{DS} = 0V | | | ±100 | nA |
| I _{DSS} | Drain-Source Leakage Current | V _{DS} =250V; V _{GS} = 0V V _{DS} =200V; V _{GS} = 0V;T _J =125℃ | | | 25 250 | uA |
| V _{SDF} | Diode forward voltage | I _{DR} =2.2A, V _{GS} = 0 V | | | 2.0 | V |

NOTICE:

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