

## isc N-Channel MOSFET Transistor

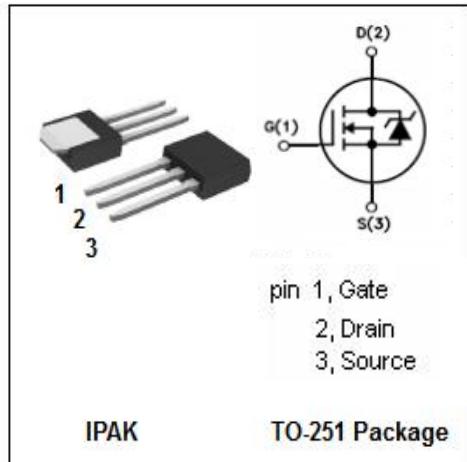
## IPU80R1K4CE

### • FEATURES

- Static drain-source on-resistance:  
 $R_{DS(on)} \leq 1.4\Omega$  (@ $V_{GS} = 10V$ ;  $I_D = 2.3A$ )
- Advanced trench process technology
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### • APPLICATIONS

- Fast switching application.

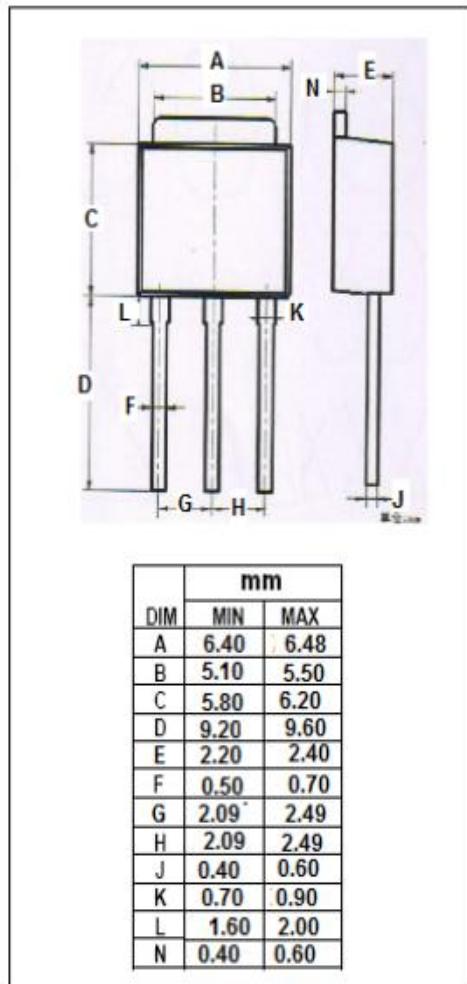


### • ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ C$ )

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage	800	V
$V_{GS}$	Gate-Source Voltage	$\pm 20$	V
$I_D$	Drain Current-Continuous	3.9	A
$P_D$	Total Dissipation @ $T_c=25^\circ C$	63	W
$T_j$	Max. Operating Junction Temperature	-55~150	°C
$T_{stg}$	Storage Temperature	-55~150	°C

### • THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(j-c)}$	Channel-to-case thermal resistance	2	°C/W



**isc N-Channel MOSFET Transistor****IPU80R1K4CE****ELECTRICAL CHARACTERISTICS** $T_c=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0V; I <sub>D</sub> = 250μA	800		V
V <sub>G(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> =V <sub>GS</sub> ; I <sub>D</sub> = 0.24mA	2.1	3.9	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> = 2.3A		1.4	Ω
I <sub>GSS</sub>	Gate-Source Leakage Current	V <sub>GS</sub> = ±20V; V <sub>DS</sub> = 0V		±100	nA
I <sub>DSS</sub>	Drain-Source Leakage Current	V <sub>DS</sub> = 800V; V <sub>GS</sub> = 0V		10	μ A
V <sub>SD</sub>	Diode forward voltage	I <sub>S</sub> = 3.9A, V <sub>GS</sub> = 0V		1.2	V

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