

isc N-Channel MOSFET Transistor

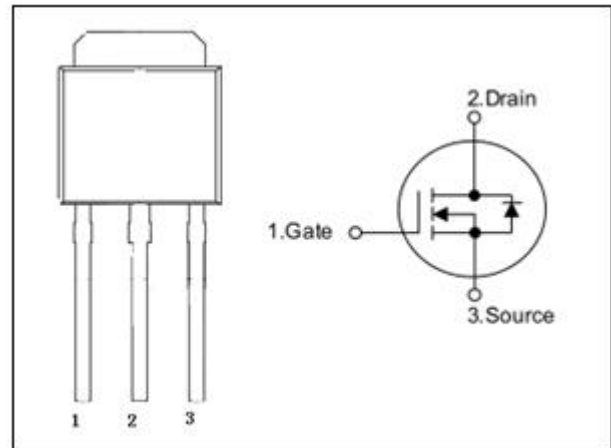
FQU10N20

• FEATURES

- Drain Source Voltage-
: $V_{DSS} = 200V(\text{Min})$
- Low On-Resistance
: $R_{DS(on)} = 0.36 \Omega (\text{Max})$
- 100% Avalanche Tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

- Power factor correction
- Switched mode power supplies
- Uninterruptible Power Supply

• ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	200	V
V_{GS}	Gate-Source Voltage-Continuous	± 30	V
I_D	Drain Current-Continuous	7.6	A
I_{DM}	Drain Current-Single Pulsed	30	A
P_D	Total Dissipation @ $T_c=25^\circ\text{C}$	55	W
T_j	Max. Operating Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~150	$^\circ\text{C}$

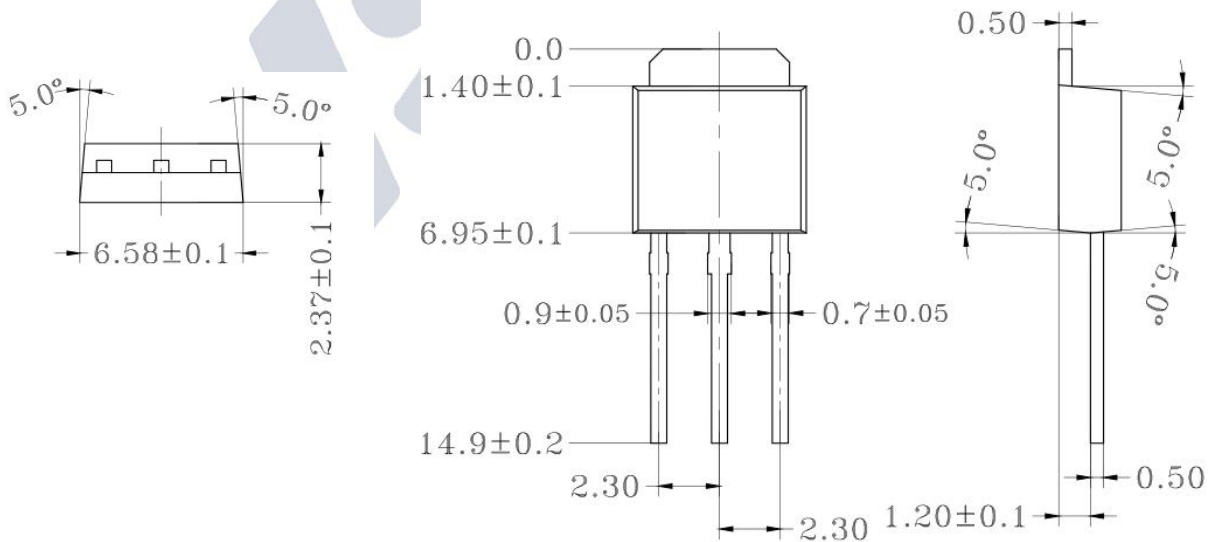
• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	2.27	$^\circ\text{C/W}$

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• ELECTRICAL CHARACTERISTICS

 T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0; I _D =250μA	200			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D =250μA	2		4	V
V _{SD}	Diode Forward On-voltage	I _S = 7.6A; V _{GS} = 0			1.5	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D = 3.8A			0.36	Ω
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±30V; V _{DS} = 0			±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =200V; V _{GS} = 0			1	μA
		V _{DS} =160V; V _{GS} = 0; T _C =125°C			10	

TO-251 outline dimensional drawing


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