

isc N-Channel MOSFET Transistor

RCJ120N20

DESCRIPTION

- Drain Source Voltage- : $V_{DSS}=200V(\text{Min})$
- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

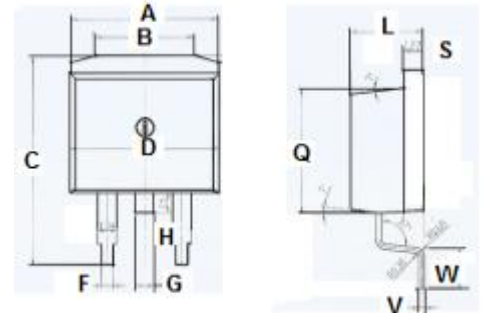
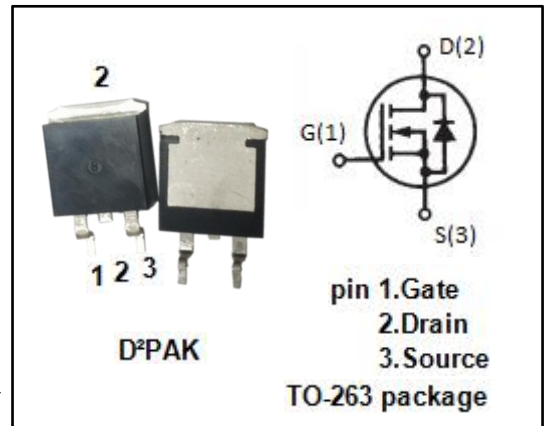
- Switch Mode Power Supply (SMPS)
- Uninterruptible Power Supply (UPS)

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS}=0$)	200	V
V_{GS}	Gate-Source Voltage	± 30	V
I_D	Drain Current-continuous@ $T_C=25^\circ\text{C}$	12	A
P_{tot}	Total Dissipation@ $T_C=25^\circ\text{C}$	52	W
E_{AS}^*	Repetitive avalanche energy	11.6	mJ
T_j	Max. Operating Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.36	$^\circ\text{C}/\text{W}$



DIM	mm	
	MIN	MAX
A	9.8	10.2
B	6.6	6.8
C	15.1	15.3
D	9.6	10
F	0.7	0.9
G	1.26	1.3
H	1.2	1.45
L	4.4	4.6
Q	9.2	9.3
S	1.25	1.35
V	0.4	0.6
W	2.6	2.8

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• ELECTRICAL CHARACTERISTICS (T_c=25°C)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} =0; I _D = 250uA	200			V
V _{GS(TH)}	Gate Threshold Voltage	V _{DS} =V _{GS} , I _D = 250uA	2		4	V
R _{DS(ON)}	Drain-Source On-stage Resistance	V _{GS} = 10V; I _D =6A			325	m Ω
I _{GSS}	Gate Source Leakage Current	V _{GS} = ± 30V; V _{DS} = 0			± 100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =200V; V _{GS} = 0			10	μA

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