

isc N-Channel MOSFET Transistor

20N15

• FEATURES

- Drain Current $I_D = 20A @ T_C = 25^\circ C$
- Drain Source Voltage-
: $V_{DS} = 150V (Min)$
- Static Drain-Source On-Resistance
: $R_{DS(on)} = 0.075 \Omega (Max)$
- Fast Switching
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

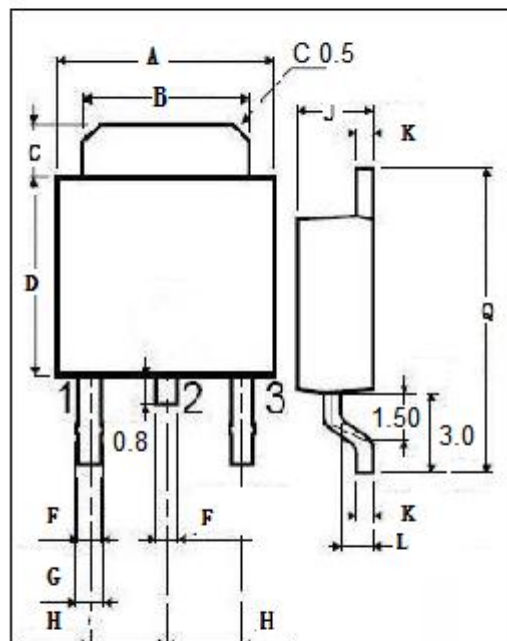
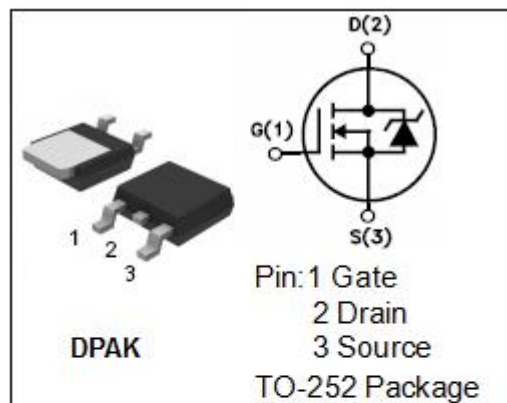
- Switching applications in power supplies
- Motor controls, high efficient DC to DC converters

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DS}	Drain-Source Voltage	150	V
V_{GS}	Gate-Source Voltage-Continuous	± 20	V
I_D	Drain Current-Continuous	20	A
I_{DM}	Drain Current-Single Pulsed	40	A
P_D	Total Dissipation @ $T_C = 25^\circ C$	90	W
T_j	Max. Operating Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature	-55~150	$^\circ C$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	0.6	$^\circ C/W$



DIM	mm	
	MIN	MAX
A	6.40	6.60
B	5.20	5.40
C	1.15	1.35
D	5.70	6.10
F	0.65	
G	0.75	
H	2.10	2.50
J	2.10	2.40
K	0.40	0.60
L	0.90	1.10
Q	9.90	10.1

isc N-Channel MOSFET Transistor**20N15****• 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	150	165		V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D =250μA	1.2	1.6	2.5	V
V _{SD}	Diode Forward On-voltage	I _S = 20A; V _{GS} = 0			1.2	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D = 10A		0.062	0.075	Ω
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±20V; V _{DS} = 0			±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =150V; V _{GS} = 0			1	μA
C _{iss}	Input Capacitance	V _{DS} =75V; V _{GS} =0V; f _T =1MHz		2500		pF
C _{rss}	Reverse Transfer capacitance			68		
C _{oss}	Output Capacitance			64		

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