

isc N-Channel MOSFET Transistor

20N45

FEATURES

- Drain Current $I_D = 20A @ T_C = 25^{\circ}C$
- Drain Source Voltage
: $V_{DSS} = 450V (Min)$
- Static Drain-Source On-Resistance
: $R_{DS(on)} = 0.27 \Omega (Max)$
- Fast Switching

APPLICATIONS

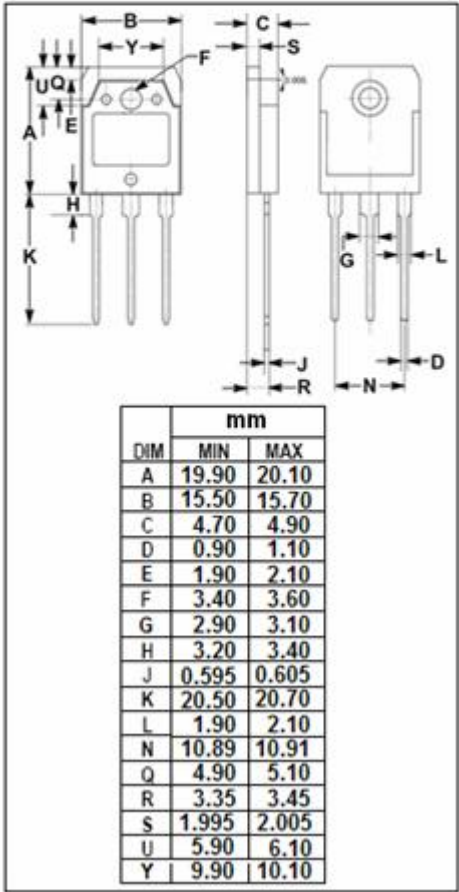
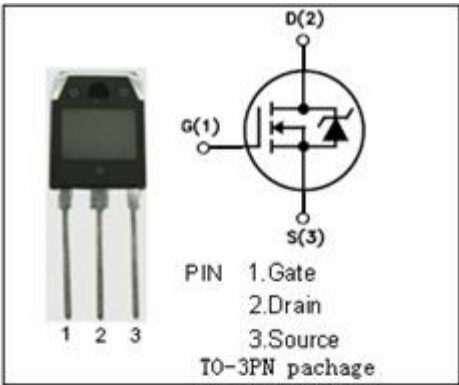
- Switch mode power supply.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	450	V
V_{GS}	Gate-Source Voltage-Continuous	± 30	V
I_D	Drain Current-Continuous	20	A
P_D	Total Dissipation @ $T_C = 25^{\circ}C$	150	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	1.25	$^{\circ}C/W$



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SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0; I_D=250\mu\text{A}$	450			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GE}; I_D=250\mu\text{A}$	2.0		4.5	V
V_{SD}	Diode Forward On-voltage	$I_S=20\text{A}; V_{GS}=0$			1.5	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10\text{V}; I_D=10\text{A}$			0.27	Ω
I_{GSS}	Gate-Body Leakage Current	$V_{GS}=\pm 30\text{V}; V_{DS}=0$			± 100	nA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=400\text{V}; V_{GS}=0$			250	μA
C_{iss}	Input Capacitance	$V_{DS}=25\text{V};$ $V_{GS}=0\text{V};$ $f_T=1\text{MHz}$			950	pF
C_{rss}	Reverse Transfer capacitance				60	
C_{oss}	Output Capacitance				150	