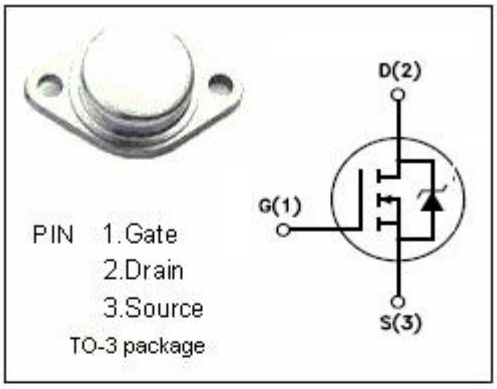
isc N-Channel Mosfet Transistor IRF441

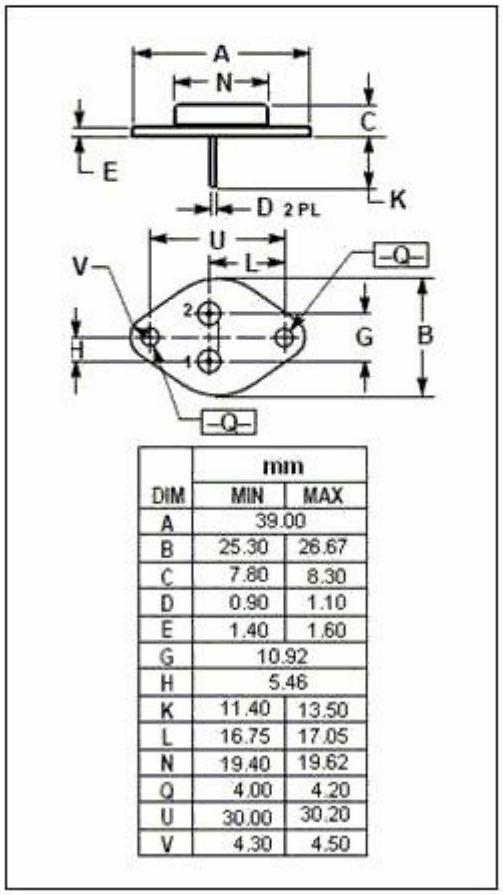
FEATURES

- V_{GS} Rated at ±20V
- Silicon Gate for Fast Switching Speeds
- I_{DSS},$V_{DS(on)}$,SOA and $V_{GS(th)}$ specified at Elevated temperature
- Rugged
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- Designed especially for high voltage,high speed applications, such as off-line switching power supplies , UPS,AC and DC motor controls,relay and solenoid drivers.



DIM	mm MIN	MAX
A	39.00	
B	25.30	26.67
C	7.80	8.30
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.40	13.50
L	16.75	17.05
N	19.40	19.62
Q	4.00	4.20
U	30.00	30.20
V	4.30	4.50

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	ARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage (V_{GS}=0)	450	V
V_{GS}	Gate-Source Voltage	±20	V
I_D	Drain Current-continuous@ TC=25℃	8	A
I_{DM}	Drain Current-Single Plused	32	A
P_{tot}	Total Dissipation@TC=25℃	125	W
T_j	Max. Operating Junction Temperature	-55~150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	1.0	℃/W
$R_{th\ j\text{-}A}$	Thermal Resistance,Junction to Ambient	60	℃/W

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V_{GS}=0; I_D=0.25mA	450			V
$V_{GS(TH)}$	Gate Threshold Voltage	V_{DS}= V_{GS}; I_D=0.25mA	2.0		4.0	V
$R_{DS(ON)}$	Drain-Source On-stage Resistance	V_{GS}=10V; I_D=4A			0.85	Ω
I_{GSS}	Gate Source Leakage Current	V_{GS}=±20V;V_{DS}=0			±100	nA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}=450V; V_{GS}=0			25	μA
V_{SD}	Diode Forward Voltage	I_S=8A; V_{GS}=0			2.0	V
Gfs	Forward Transconductance	V_{DS}= 10V； I_D=4A	4.0			S
$t_{d(on)}$	Turn-on Delay Time	I_D=4A; V_{DD}=220V; R_{GS}=4.7Ω; V_{GS}=10V			35	ns
t_r	Rise Time				15	
$t_{d(off)}$	Turn-off Delay Time				90	
t_f	Fall Time				30	

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