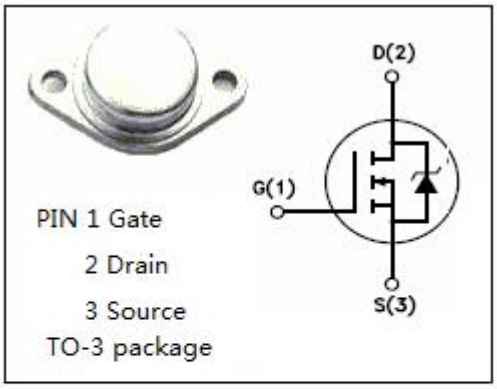
isc N-Channel MOSFET Transistor IRF150

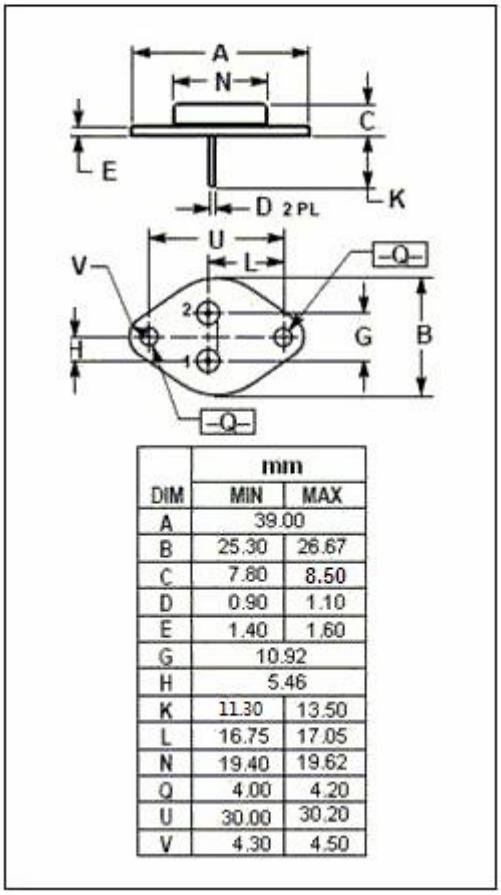
DESCRIPTION

- Drain Current –I_D=40A@ T_C=25℃
- Drain Source Voltage-
  : V_{DSS}= 100V(Min)
- Static Drain-Source On-Resistance
  : $R_{DS(on)}$ =0.055Ω (Max)
- High Power,High Speed Applications
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- Switching power supplies
- UPS
- Motor controls
- High energy pulse circuits.



DIM	mm MIN	MAX
A	39.00	
B	25.30	26.67
C	7.60	8.50
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.30	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)	100	V
V_{GS}	Gate-Source Voltage	±20	V
I_D	Drain Current-continuous@ TC=25℃	40	A
P_{tot}	Total Dissipation@TC=25℃	150	W
T_j	Max. Operating Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	0.83	℃/W

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• ELECTRICAL CHARACTERISTICS (T_C=25℃)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V_{GS}=0; I_D=250μA	100			V
$V_{GS(TH)}$	Gate Threshold Voltage	V_{DS}= V_{GS}; I_D=250μA	2.0		4.0	V
$R_{DS(ON)}$	Drain-Source On-stage Resistance	V_{GS}=10V; I_D=20A			0.055	Ω
I_{GSS}	Gate Source Leakage Current	V_{GS}=±20V;V_{DS}=0			±100	nA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}=100V; V_{GS}=0			250	uA
V_{SD}	Diode Forward Voltage	I_S=40A; V_{GS}=0			2.5	V
C_{iss}	Input Capacitance	V_{DS}=25V; V_{GS}=0V; f_T=1MHz			3000	pF
C_{rss}	Reverse Transfer Capacitance				500	
C_{oss}	Output Capacitance				1500	
t_r	Rise Time	V_{GS}=10V; R_{GS}=50Ω; I_D=20A; V_{DD}=75V; R_L=50Ω			450	ns
$t_{d(on)}$	Turn-on Delay Time				75	
t_f	Fall Time				200	
$t_{d(off)}$	Turn-off Delay Time				300	

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