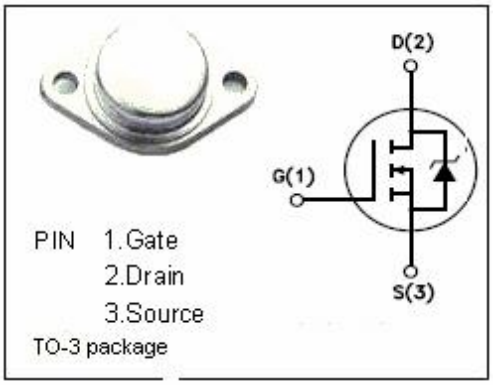
isc N-Channel Mosfet Transistor IRFAC30

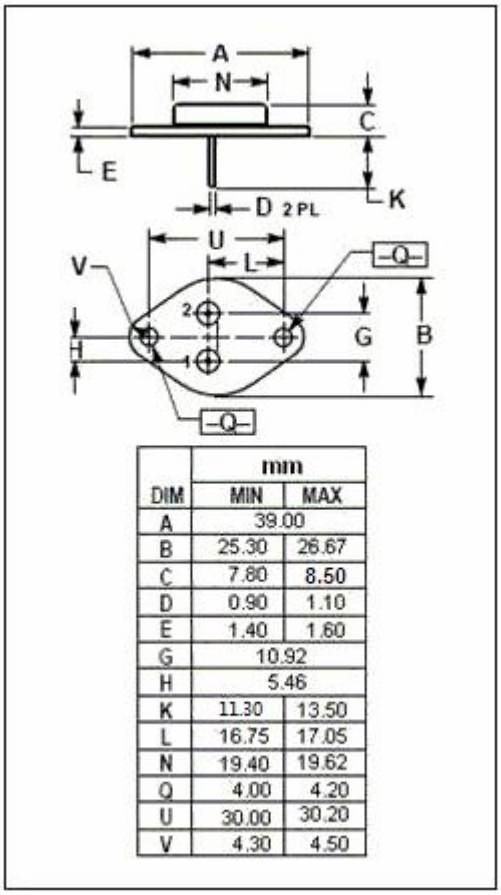
- **FEATURES**
- Lower Input Capacitance
- Improved Gate Charge
- Extended Safe Operating Area
- Rugged Gate Oxide Technology
- High speed switching
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



- **DESCRITION**
- High current ,high speed switching
- Switch mode power supplies
- DC-AC converters for welding equipment and Uninterruptible power supplies and motor Driver.

- **ABSOLUTE MAXIMUM RATINGS(T_a=25℃)**

SYMBOL	ARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage (V_{GS}=0)	600	V
V_{GS}	Gate-Source Voltage	±20	V
I_D	Drain Current-continuous@ TC=25℃	3.6	A
I_{DM}	Drain Current-Single Plused	14	A
P_{tot}	Total Dissipation@TC=25℃	75	W
T_j	Max. Operating Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	MAX
A	39.00	
B	25.30	26.67
C	7.80	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

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	1.67	℃/W
$R_{th\ j\text{-}a}$	Thermal Resistance,Junction to Ambient	35	℃/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=1mA	600			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}= V_{GS}; I_D=0.25mA	2.0		4.0	V
V_{SD}	Diode Forward On-voltage	I_S= 3.6A ;V_{GS}= 0			1.6	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}= 10V; I_D= 3.6A			2.5	Ω
I_{GSS}	Gate-Body Leakage Current	V_{GS}= ±20V;V_{DS}= 0			±100	nA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}=480V; V_{GS}= 0			25	μA
Gfs	Forward Transconductance	V_{DS}= 25V； I_D=2.3A	2.4			S
$t_{d(on)}$	Turn-on Delay Time	I_D=3.6A; V_{DD}=300V; R_G=7.5Ω			17	ns
t_r	Rise Time				20	
$t_{d(off)}$	Turn-off Delay Time				53	
t_f	Fall Time				21	