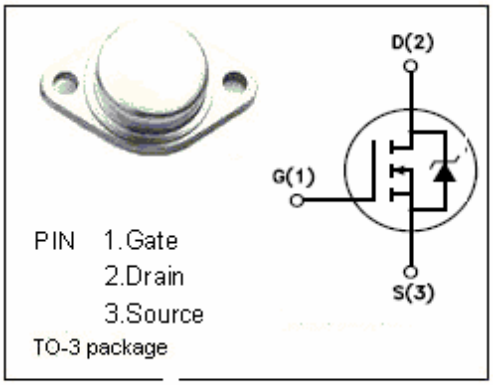
isc N-Channel MOSFET Transistor IRF462

DESCRIPTION

- Repetitive Avalanche Ratings
- Dynamic dv/dt Rating
- Hermetically Sealed
- Simple Drive Requirements
- Ease of Paralleling



APPLICATIONS

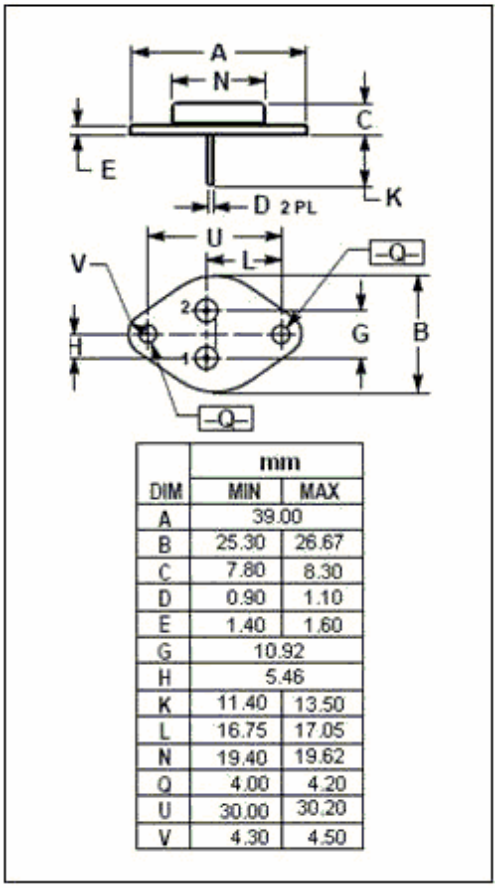
- Designed for applications such as switching power Supplies ,motor controls ,inverters ,choppers ,audio amplifiers and high energy pulse circuits.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	ARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage (V_{GS}=0)	500	V
V_{GS}	Gate-Source Voltage	±20	V
I_D	Drain Current-continuous@ TC=25℃	19	A
P_{tot}	Total Dissipation@TC=25℃	300	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	0.42	℃/W
$R_{th\ j\text{-}A}$	Thermal Resistance,Junction to Ambient	30	℃/W



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

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• ELECTRICAL CHARACTERISTICS (T_C=25℃)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V_{GS}=0; I_D= 0.25mA	500			V
$V_{GS(TH)}$	Gate Threshold Voltage	V_{DS}= V_{GS}; I_D= 0.25mA	2		4	V
$R_{DS(ON)}$	Drain-Source On-stage Resistance	V_{GS}= 10V; I_D= 12A			0.35	Ω
I_{GSS}	Gate Source Leakage Current	V_{GS}= ±20V; V_{DS}= 0			±100	nA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}= 500V; V_{GS}= 0			250	uA
V_{SD}	Diode Forward Voltage	I_F= 21A; V_{GS}= 0			1.8	V
Ciss	Input Capacitance	V_{DS}=250V,V_{GS}=10V, F=1.0MHz		4100		pF
Coss	Output Capacitance			480		pF
Crss	Reverse Transfer Capacitance			84		pF

• SWITCHING CHARACTERISTICS (T_C=25℃)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
Td(on)	Turn-on Delay Time	V_{DD}=250V,I_D=21A R_G=4.3Ω		23	35	ns
Tr	Rise Time			81	120	ns
Td(off)	Turn-off Delay Time			85	130	ns
Tf	Fall Time			65	98	ns