

isc N-Channel MOSFET Transistor

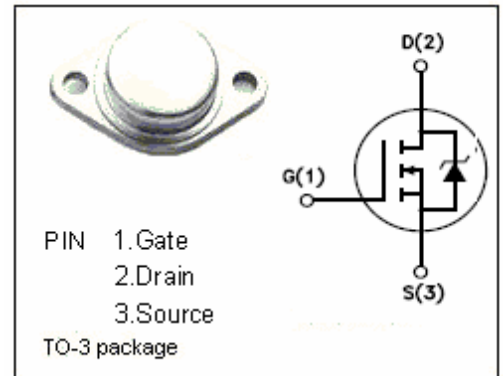
IRF462

DESCRIPTION

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

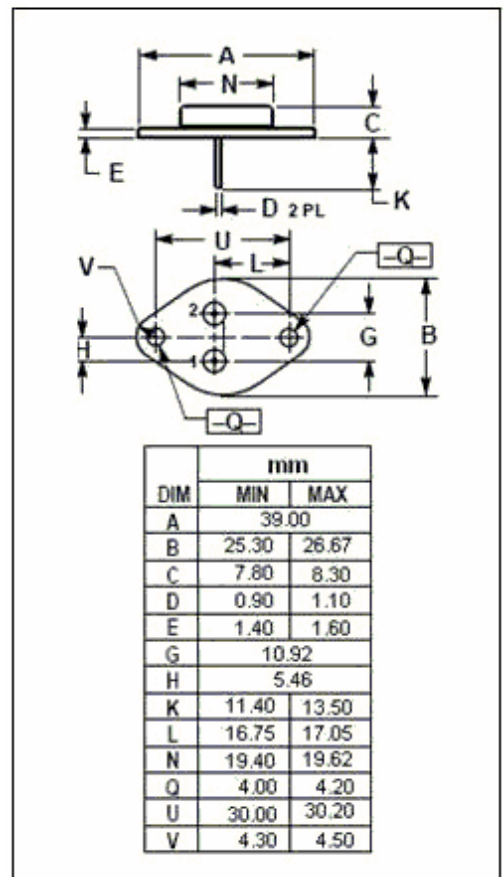
APPLICATIONS

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



ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>DSS</sub>	Drain-Source Voltage (V <sub>GS</sub> =0)	500	V
V <sub>GS</sub>	Gate-Source Voltage	±20	V
I <sub>D</sub>	Drain Current-continuous@ TC=25°C	19	A
P <sub>tot</sub>	Total Dissipation@TC=25°C	300	W
T <sub>j</sub>	Max. Operating Junction Temperature	-55~150	°C
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C



THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance,Junction to Case	0.42	°C/W
R <sub>th j-A</sub>	Thermal Resistance,Junction to Ambient	30	°C/W

## isc N-Channel Mosfet Transistor

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• ELECTRICAL CHARACTERISTICS ( $T_C=25^\circ\text{C}$ )

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

• SWITCHING CHARACTERISTICS ( $T_C=25^\circ\text{C}$ )

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$T_d(\text{on})$	Turn-on Delay Time	$V_{DD}=250\text{V}, I_D=21\text{A}$ $R_G=4.3\Omega$		23	35	ns
$T_r$	Rise Time			81	120	ns
$T_d(\text{off})$	Turn-off Delay Time			85	130	ns
$T_f$	Fall Time			65	98	ns