

isc N-Channel MOSFET Transistor

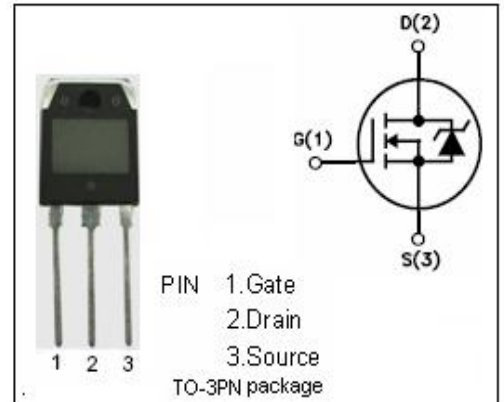
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DESCRIPTION

- Drain Current  $-I_D=15A @ T_C=25^\circ C$
- Drain Source Voltage-  
:  $V_{DSS}=500V(\text{Min})$

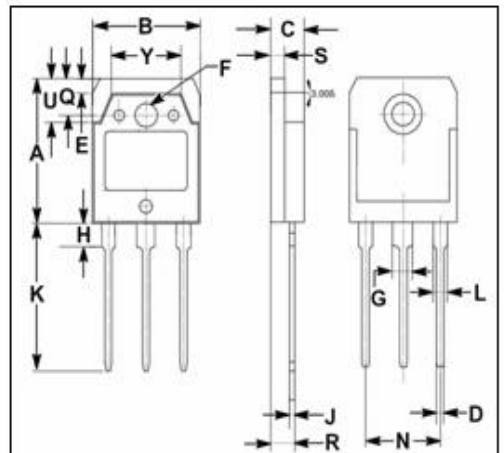
APPLICATIONS

- high voltage, high speed power switching



ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ C$ )

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage ( $V_{GS}=0$ )	500	V
$V_{GS}$	Gate-Source Voltage	$\pm 30$	V
$I_D$	Drain Current-continuous@ $T_C=25^\circ C$	15	A
$P_{tot}$	Total Dissipation@ $T_C=25^\circ C$	125	W
$T_j$	Max. Operating Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ C$



DIM	mm	
	MIN	MAX
A	19.90	20.10
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.10
H	3.20	3.40
J	0.595	0.605
K	20.50	20.70
L	1.90	2.10
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.005
U	5.90	6.10
Y	9.90	10.10

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance,Junction to Case	1.00	$^\circ C/W$
$R_{th\ j-a}$	Thermal Resistance,Junction to Ambient	35	$^\circ C/W$

## 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	$V_{GS}=0; I_D=1\text{mA}$	500			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}; I_D=1\text{mA}$	2.5	3.5	5.0	V
$R_{DS(on)}$	Drain-Source On-stage Resistance	$V_{GS}=10\text{V}; I_D=8\text{A}$		0.36	0.55	$\Omega$
$I_{GSS}$	Gate Source Leakage Current	$V_{GS}= \pm 30\text{V}; V_{DS}=0$			$\pm 100$	nA
$I_{DSS}$	Zero Gate Voltage Drain Current	$V_{DS}=500\text{V}; V_{GS}=0$			500	$\mu\text{A}$
$V_{SD}$	Forward On-Voltage	$I_S=15\text{A}; V_{GS}=0$		1.1	1.6	V
$t_r$	Rise time	$V_{GS}=10\text{V}; I_D=15\text{A};$ $R_L=25\ \Omega$		100	150	ns
$t_{on}$	Turn-on time			170	260	ns
$t_f$	Fall time			80	120	ns
$t_{off}$	Turn-off time			330	400	ns