

isc N-Channel MOSFET Transistor

15N60

• FEATURES

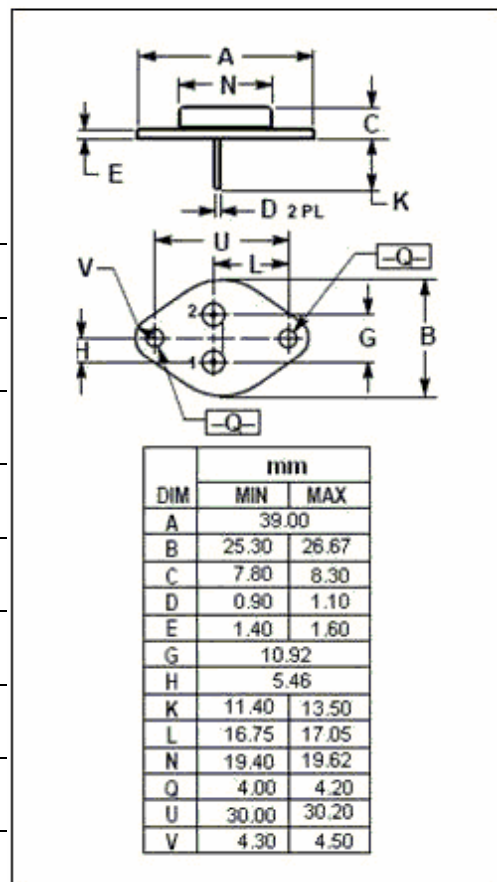
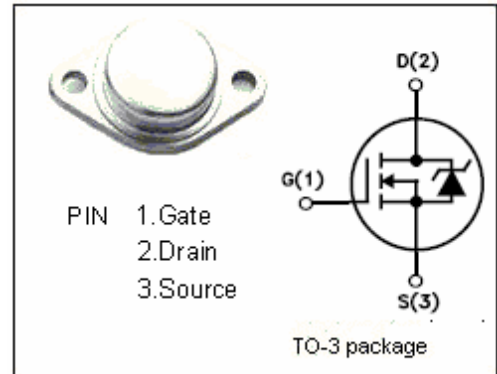
- Drain Current $I_D = 15A @ T_C = 25^\circ C$
- Drain Source Voltage
: $V_{DSS} = 600V(\text{Min})$
- Static Drain-Source On-Resistance
: $R_{DS(on)} = 0.44 \Omega (\text{Max})$
- High Switching Speed

• APPLICATIONS

- Switching regulators

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	600	V
V_{GS}	Gate-Source Voltage-Continuous	± 30	V
I_D	Drain Current-Continuous	15	A
I_{DM}	Drain Current-Single Plused	60	A
P_D	Total Dissipation @ $T_C = 25^\circ C$	300	W
T_j	Max. Operating Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature	-55~150	$^\circ C$



isc N-Channel MOSFET Transistor**15N60****• ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0; I_D=250\mu\text{A}$	600			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}; I_D=250\mu\text{A}$	3.0		5.0	V
V_{SD}	Diode Forward On-voltage	$I_S=15\text{A}; V_{GS}=0$			1.4	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10\text{V}; I_D=7.5\text{A}$			0.44	Ω
I_{GSS}	Gate-Body Leakage Current	$V_{GS}=\pm 30\text{V}; V_{DS}=0$			± 100	nA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=600\text{V}; V_{GS}=0$			1	μA
C_{iss}	Input Capacitance	$V_{DS}=25\text{V};$ $V_{GS}=0\text{V};$ $f_T=1\text{MHz}$		2380	3095	pF
C_{riss}	Reverse Transfer capacitance			23.6	35.5	
C_{oss}	Output Capacitance			295	385	
t_r	Rise Time	$V_{GS}=10\text{V};$ $I_D=15\text{A};$ $V_{DD}=325\text{V};$ $R_G=21.7\Omega$		125	260	ns
$t_{d(on)}$	Turn-on Delay Time			65	140	
t_f	Fall Time			65	140	
$t_{d(off)}$	Turn-off Delay Time			105	220	