

isc N-Channel MOSFET Transistor

80N06

• DESCRIPTION

- Drain Current $I_D = 80A @ T_C = 25^\circ C$
- Drain Source Voltage-
: $V_{DSS} = 60V (Min)$
- Fast Switching Speed

• APPLICATIONS

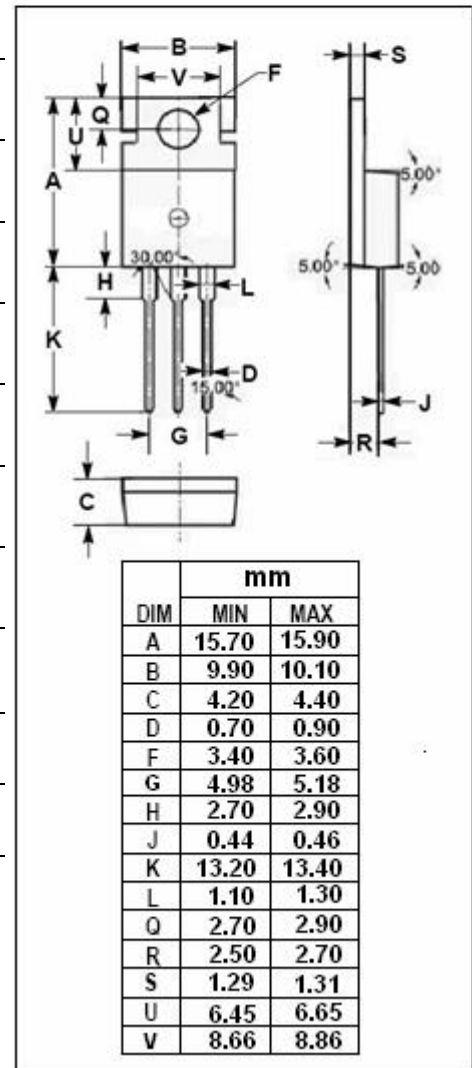
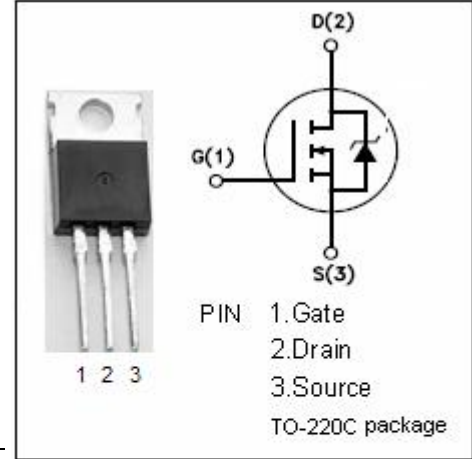
- General purpose power amplifier

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS} = 0$)	60	V
V_{GS}	Gate-Source Voltage	± 30	V
I_D	Drain Current-continuous @ $T_C = 25^\circ C$	80	A
$I_{D(puls)}$	Pulse Drain Current	320	A
P_{tot}	Total Dissipation @ $T_C = 25^\circ C$	150	W
T_j	Max. Operating Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	1.0	$^\circ C/W$



isc N-Channel MOSFET Transistor

80N06

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0; I_D=250\mu\text{A}$	60			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}; I_D=250\mu\text{A}$	2.0		4.0	V
V_{SD}	Diode Forward On-Voltage	$I_S=80\text{A}; V_{GS}=0$			1.5	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10\text{V}; I_D=40\text{A}$			0.01	Ω
I_{GSS}	Gate-Body Leakage Current	$V_{GS}=\pm 20\text{V}; V_{DS}=0$			± 100	nA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=60\text{V}; V_{GS}=0$			250	μA
C_{iss}	Input Capacitance	$V_{DS}=25\text{V};$ $V_{GS}=0\text{V};$ $f_T=1\text{MHz}$		5900		pF
C_{riss}	Reverse Transfer Capacitance			230		
C_{oss}	Output Capacitance			900		
t_r	Rise Time	$V_{GS}=10\text{V};$ $I_D=80\text{A};$ $V_{DD}=48\text{V};$ $R_G=50\Omega$			200	ns
$t_{d(on)}$	Turn-on Delay Time				42	
t_f	Fall Time				230	
$t_{d(off)}$	Turn-off Delay Time				46	