

N-Channel MOSFET Transistor

FQP7N65C

• FEATURES

- Drain Current $I_D = 7A @ T_C = 25^\circ C$
- Drain Source Voltage
: $V_{DSS} = 650V (Min)$
- Static Drain-Source On-Resistance
: $R_{DS(on)} = 1.35 \Omega (Max) @ V_{GS} = 10 V$
- Avalanche Energy Specified
- Fast Switching

• APPLICATIONS

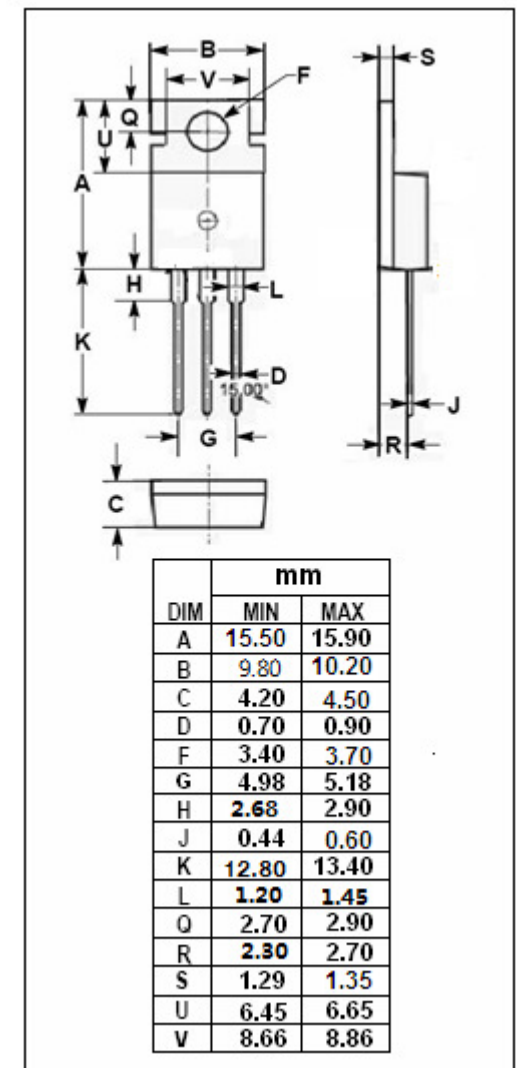
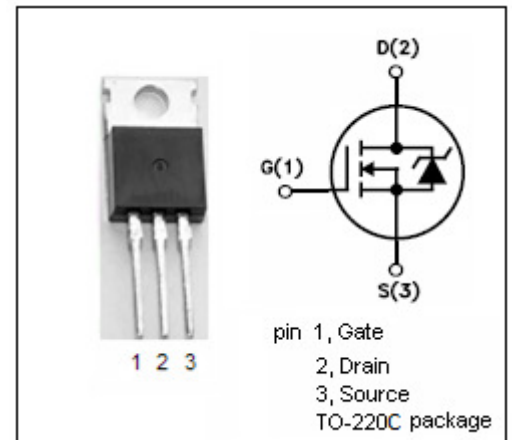
- High speed switching applications in power supplies
- PWM motor controls
- High efficient DC to DC converters and bridge circuits.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	650	V
V_{GS}	Gate-Source Voltage-Continuous	± 30	V
I_D	Drain Current-Continuous	7	A
I_{DM}	Drain Current-Single Plused	28	A
P_D	Total Dissipation @ $T_C = 25^\circ C$	142	W
T_j	Max. Operating Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature	-55~150	$^\circ C$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	0.88	$^\circ C/W$
$R_{th j-a}$	Thermal Resistance, Junction to Ambient	62.5	$^\circ C/W$



N-Channel MOSFET Transistor**FQP7N65C****• ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN		MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0$; $I_D=0.25\text{mA}$	650			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-Resistance	$V_{GS}=10\text{V}$; $I_D=3.5\text{A}$			1.35	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	$V_{DS}=650\text{V}$; $V_{GS}=0$			1	μA
V_{SD}	Forward On-Voltage	$I_S=7\text{A}$; $V_{GS}=0$			1.4	V
Gfs	Forward Transconductance	$V_{DS}=40\text{V}$; $I_D=3.5\text{A}$		8		S