

isc N-Channel MOSFET Transistor

FQP50N06

DESCRIPTION

- Drain Current $I_D=50A@ T_C=25^{\circ}C$
- Drain Source Voltage-
: $V_{DSS}=60V(\text{Min})$
- Static Drain-Source On-Resistance
: $R_{DS(on)} = 22m\Omega (\text{Max})$
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

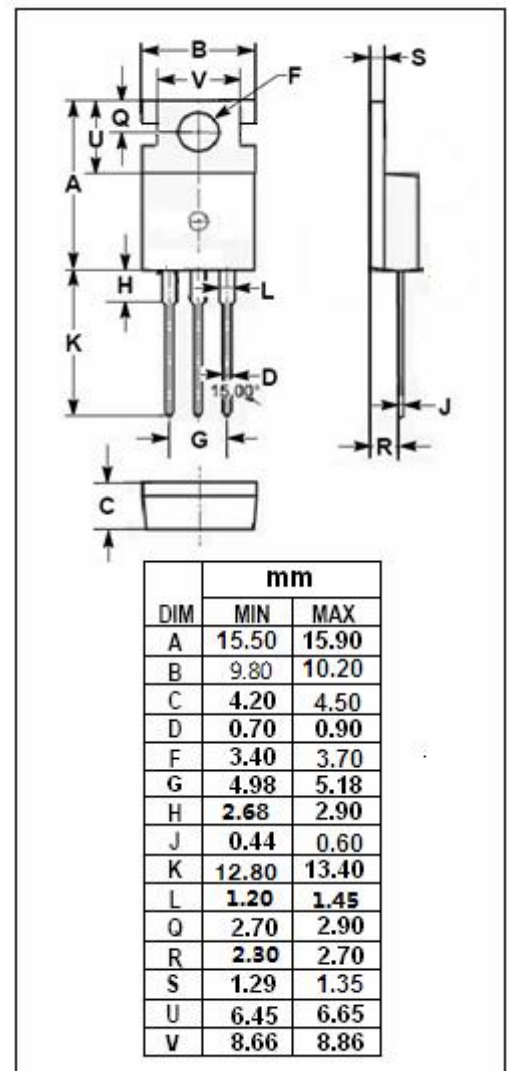
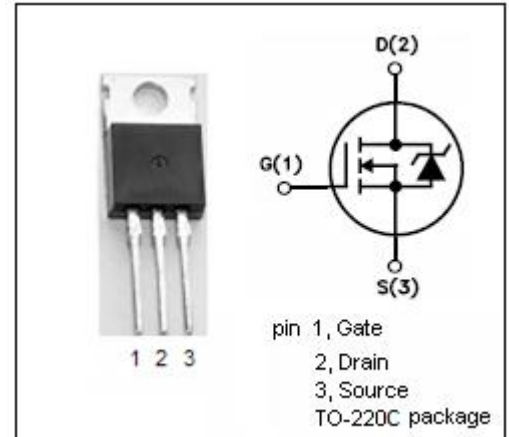
- High current , high speed switching
- Switch mode power supplies
- DC-DC converters for telecom, industrial, and lighting equipment ideal for monitor's B+ function

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS}=0$)	60	V
V_{GS}	Gate-Source Voltage	± 25	V
I_D	Drain Current-continuous@ $TC=25^{\circ}C$	50	A
	Drain Current-continuous@ $TC=100^{\circ}C$	35.4	
P_D	Power Dissipation @ $TC=25^{\circ}C$	120	W
T_j	Max. Operating Junction Temperature	-55~175	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55~175	$^{\circ}C$

THERMAL CHARACTERISTICS

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



isc N-Channel Mosfet Transistor**FQP50N06****• ELECTRICAL CHARACTERISTICS (T_c=25°C)**

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0; I _D = 0.25mA	60		V
V _{GS(TH)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D = 0.25mA	2	4	V
R _{DS(ON)}	Drain-Source On-stage Resistance	V _{GS} = 10V; I _D = 25A		0.022	Ω
I _{GSS}	Gate Source Leakage Current	V _{GS} = ±25V; V _{DS} = 0		±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 60V; V _{GS} = 0		1	uA
V _{SD}	Diode Forward Voltage	I _F = 50A; V _{GS} = 0		1.5	V

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