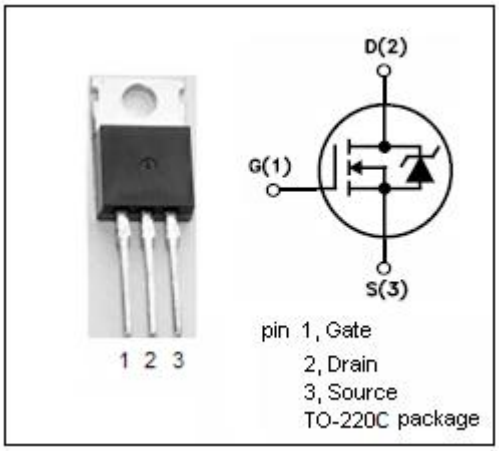
isc N-Channel MOSFET Transistor FQP50N06



DESCRIPTION

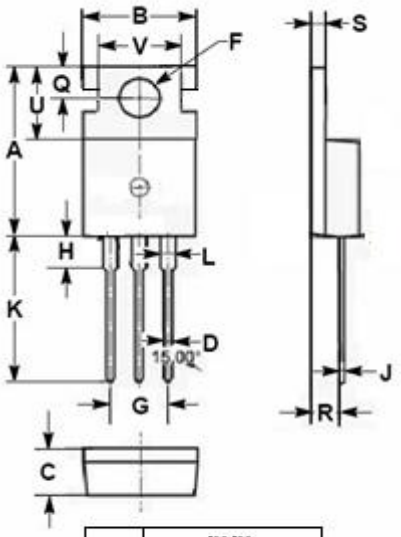
- Drain Current I_D=50A@ T_C=25℃
- Drain Source Voltage-
  : V_{DSS}=60V(Min)
- Static Drain-Source On-Resistance
  : $R_{DS(on)}$ = 22mΩ (Max)
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

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℃)

SYMBOL	ARAMETER	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℃	50	A
	Drain Current-continuous@ TC=100℃	35.4	
P_D	Power Dissipation @TC=25℃	120	W
T_j	Max. Operating Junction Temperature	-55~175	℃
T_{stg}	Storage Temperature Range	-55~175	℃



DIM	mm MIN	MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}a}$	Thermal Resistance,Junction to Ambient	62.5	℃/W

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• **ELECTRICAL CHARACTERISTICS (T_C=25℃)**

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