

isc N-Channel MOSFET Transistor

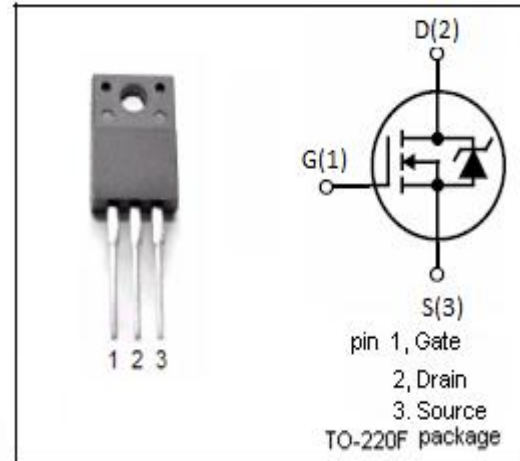
FQPF50N06

• FEATURES

- With TO-220F packaging
- High speed switching
- Very high commutation ruggedness
- Easy to use
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operationz

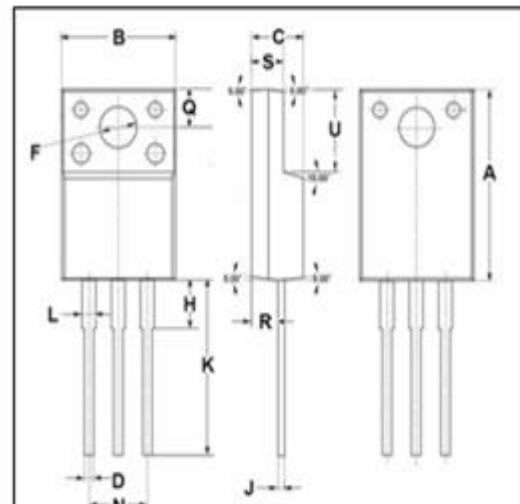
• APPLICATIONS

- PFC stages
- LCD & PDP TV
- Power supply
- Switching applications



• ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{DSS}	Drain-Source Voltage	60	V
V _{GSS}	Gate-Source Voltage	±25	V
I _D	Drain Current-Continuous@T _c =25°C T _c =100°C	31 21.9	A
I _{DM}	Drain Current-Single Pulsed	124	A
P _D	Total Dissipation	47	W
T _j	Operating Junction Temperature	-55~175	°C
T _{stg}	Storage Temperature	-55~175	°C



DIM	mm	
	MIN	MAX
A	14.95	15.05
B	10.00	10.10
C	4.40	4.60
D	0.75	0.90
F	3.10	3.30
H	3.70	3.90
J	0.50	0.70
K	13.4	13.6
L	1.10	1.30
N	5.00	5.20
Q	2.70	2.90
R	2.20	2.40
S	2.65	2.90
U	6.40	6.60

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
Rth(ch-c)	Channel-to-case thermal resistance	3.22	°C/W
Rth(ch-a)	Channel-to-ambient thermal resistance	62.5	°C/W

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ELECTRICAL CHARACTERISTICS

T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV _{DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V; I _D = 0.25mA	60			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =±25V; I _D =0.25mA	2.0		4.0	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D =15.5A		18	22	mΩ
I _{GSS}	Gate-Source Leakage Current	V _{GS} = ±25V; V _{DS} = 0V			±0.1	μA
I _{DSS}	Drain-Source Leakage Current	V _{DS} = 60V; V _{GS} = 0V; T _C =25°C V _{DS} = 48V; V _{GS} = 0V; T _C =150°C			1 10	μA
V _{SDF}	Diode forward voltage	I _{SD} =31A, V _{GS} = 0 V			1.5	V