

isc N-Channel MOSFET Transistor

FQD50N06

• FEATURES

- Drain Source Voltage-
: $V_{DSS} = 60V(\text{Min})$
- Static Drain-Source On-Resistance
: $R_{DS(on)} = 22m\Omega (\text{Max})$
- Fast Switching
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

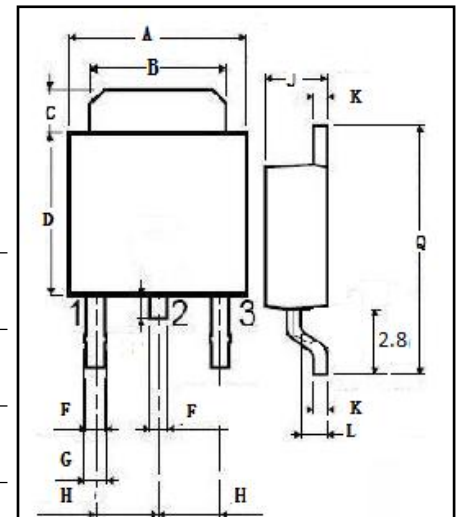
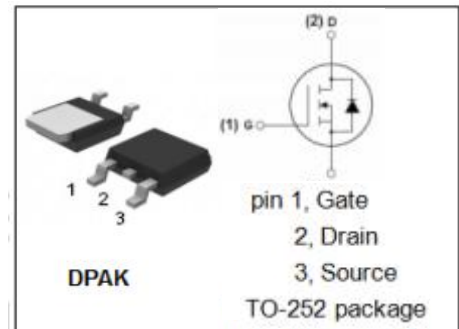
- High current , high speed switching
- Switch mode power supplies
- DC-DC converters for telecom, industrial, and lighting equipment ideal for monitor's B+ function

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	60	V
V_{GS}	Gate-Source Voltage-Continuous	± 25	V
I_D	Drain Current-Continuous	50	A
I_{DM}	Drain Current-Single Plused	200	A
P_D	Total Dissipation @ $T_c=25^\circ\text{C}$	83	W
T_j	Max. Operating Junction Temperature	-55~175	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~175	$^\circ\text{C}$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R_{th-j-c}	Thermal Resistance, Junction to Case	1.8	$^\circ\text{C}/\text{W}$



DIM	mm	
	MIN	MAX
A	6.4	6.6
B	5.2	5.4
C	1.3	1.7
D	5.2	5.7
F	0.6	0.7
G	0.65	0.75
H	2.1	2.5
J	2.1	2.4
K	0.4	0.6
L	0.9	1.1
Q	9.5	10

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• ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0; I _D =250μA	60			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D =250uA	2		4	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D = 25A			22	mΩ
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±25V; V _{DS} = 0			±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =60V; V _{GS} = 0 V _{DS} =48V; V _{GS} = 0; T _C =150°C			1 10	μA
V _{SD}	Diode Forward On-voltage	I _F = 50A; V _{GS} = 0			1.5	V

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