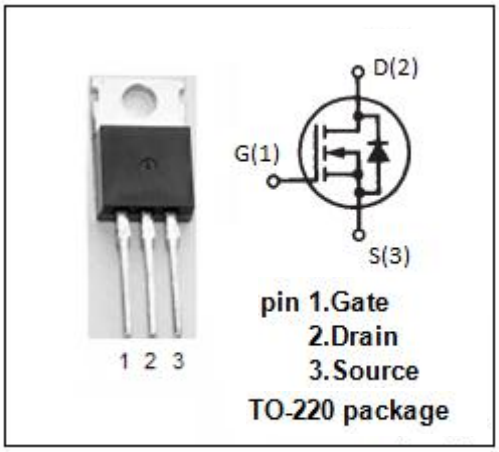
isc N-Channel MOSFET Transistor FDP8870



• FEATURES

- With TO-220 packaging
- Drain Source Voltage-
  : V_{DSS} ≥ 30V
- Static drain-source on-resistance:
  $R_{DS}(on)$ ≤ 41mΩ@V_{GS}=10V
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

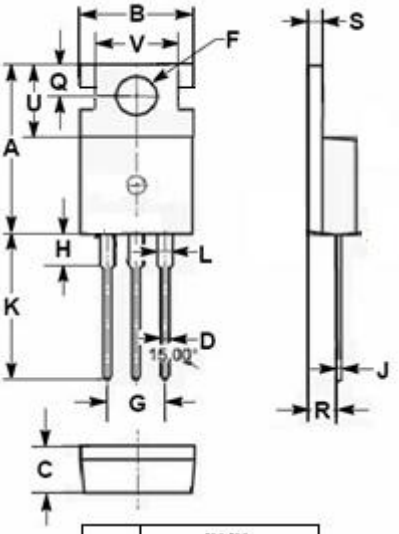
- Power supply
- Switching applications

• ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	30	V
V_{GSS}	Gate-Source Voltage	±20	V
I_D	Drain Current-Continuous;@Tc=25℃	156	A
P_D	Total Dissipation	160	W
T_j	Operating Junction Temperature	-55~175	℃
T_{stg}	Storage Temperature	-55~175	℃

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
Rth(ch-c)	Channel-to-case thermal resistance	0.94	℃/W



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

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV_{DSS}	Drain-Source Breakdown Voltage	V_{GS}=0V; I_D= 250uA	30			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}=V_{GS}; I_D=250uA	1.5		2.5	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}= 10V; I_D=35A			41	mΩ
I_{GSS}	Gate-Source Leakage Current	V_{GS}=±20V;V_{DS}= 0V			±100	nA
I_{DSS}	Drain-Source Leakage Current	V_{DS}= 24V; V_{GS}= 0V V_{DS}= 24V; V_{GS}= 0V;T_J=150℃			1 250	μA
V_{SDF}	Diode forward voltage	I_{SD}= 35A, V_{GS} = 0 V			1.25	V