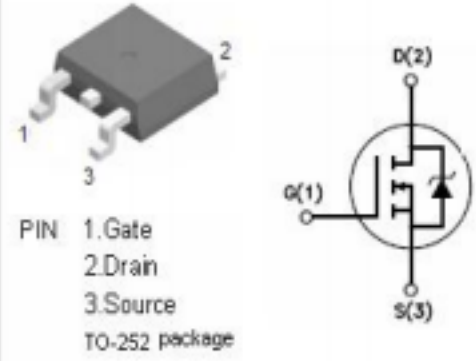
N-Channel MOSFET Transistor

FDD9407



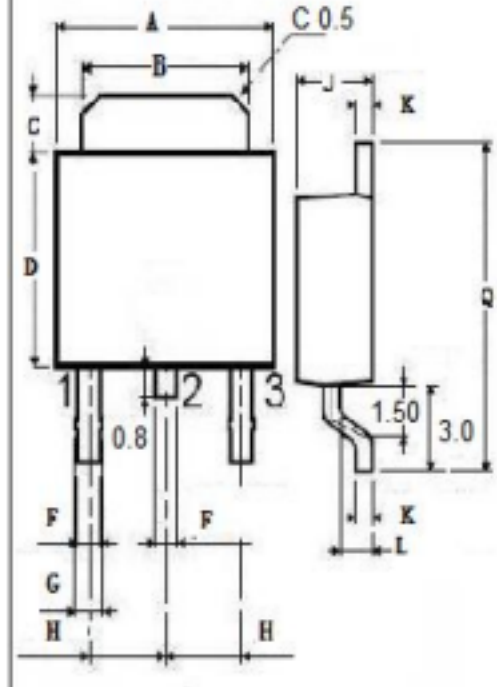
PIN 1.Gate
2.Drain
3.Source
TO-252 package

• FEATURES

- With TO-252(DPAK) packaging
- UIS capability
- High speed switching
- Easy to use
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operationz

• APPLICATIONS

- Switching applications



DIM	mm MIN	mm MAX
A	6.40	6.60
B	5.20	5.40
C	1.15	1.35
D	5.70	6.10
F	0.65	
G	0.75	
H	2.10	2.50
J	2.10	2.40
K	0.40	0.60
L	0.90	1.10
Q	9.90	10.1

• ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	40	V
V_{GSS}	Gate-Source Voltage	±20	V
I_D	Drain Current-Continuous	100	A
I_{DM}	Drain Current-Single Pulsed	500	A
P_D	Total Dissipation	227	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	0.66	℃/W
Rth(ch-a)	Channel-to-ambient thermal resistance	52	℃/W

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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= 0.25mA	40			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}=±20V; I_D=0.25mA	2.0		4.0	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}= 10V; I_D=80A		1.6	2	mΩ
I_{GSS}	Gate-Source Leakage Current	V_{GS}= ±20V;V_{DS}= 0V			±1	μA
I_{DSS}	Drain-Source Leakage Current	V_{DS}= 40V; V_{GS}= 0V;Tj=25℃ Tj=175℃			1 1000	μA
V_{SDF}	Diode forward voltage	I_{SD}=80A, V_{GS} = 0 V			1.25	V