isc N-Channel MOSFET Transistor   SPD06N60C3,ISPD06N60C3

• **FEATURES**

• Static drain-source on-resistance:
  $R_{DS}(on) \leqslant 0.75\Omega$

• Enhancement mode:

• 100% avalanche tested

• Minimum Lot-to-Lot variations for robust device performance and reliable operation
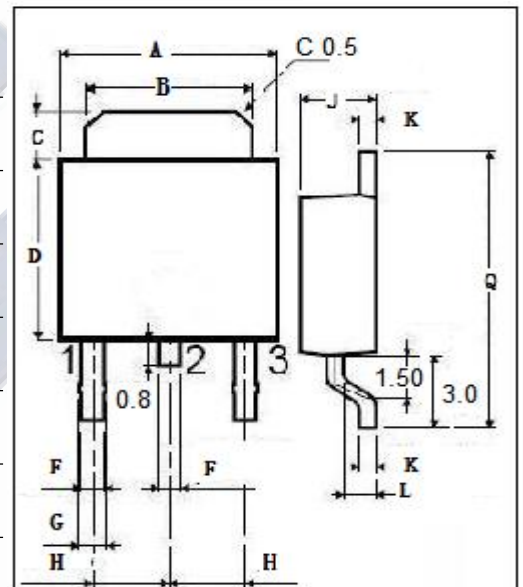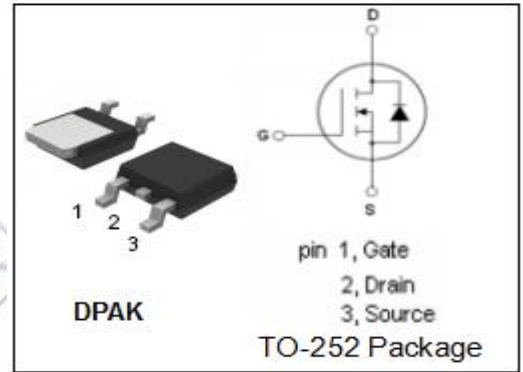
• **DESCRIPTION**

• High peak current capability

pin 1, Gate
2, Drain
3, Source

DPAK

TO-252 Package

• **ABSOLUTE MAXIMUM RATINGS(T_a=25℃)**

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	600	V
V_{GS}	Gate-Source Voltage	±20	V
I_D	Drain Current-Continuous	6.2	A
I_{DM}	Drain Current-Single Pulsed	18.6	A
P_D	Total Dissipation @T_C=25℃	74	W
T_j	Max. Operating Junction Temperature	150	℃
T_{stg}	Storage Temperature	-40~150	℃

• **THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
Rth(j-c)	Channel-to-case thermal resistance	1.7	℃/W
Rth(j-a)	Channel-to-ambient thermal resistance	75	℃/W

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

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	600			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}=V_{GS}; I_D=0.26mA	2.1		3.9	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}=10V; I_D=3.9A			0.75	Ω
I_{GSS}	Gate-Source Leakage Current	V_{GS}=20V; V_{DS}=0V			0.1	μA
I_{DSS}	Drain-Source Leakage Current	V_{DS}=600V; V_{GS}= 0V			1	μA
V_{SD}	Diode forward voltage	I_F=6.2A, V_{GS} = 0V			1.2	V