

isc N-Channel MOSFET Transistor

SPD06N80C3,ISPD06N80C3

• FEATURES

- Static drain-source on-resistance:
 $R_{ds(on)} \leq 0.9\Omega$
- Enhancement mode:
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• DESCRIPTION

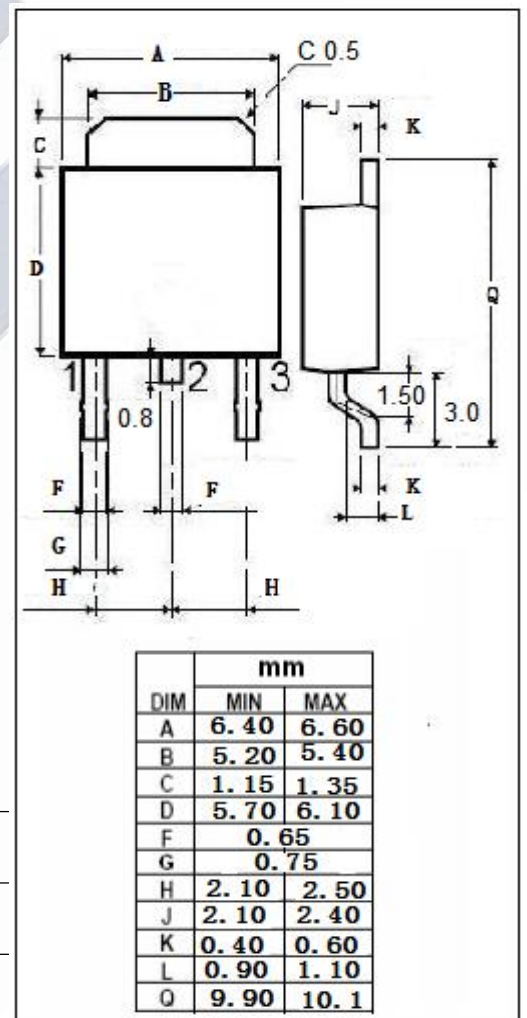
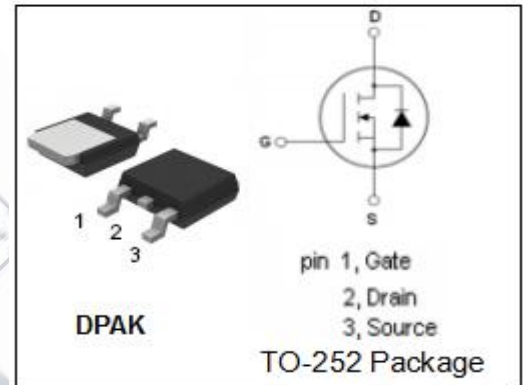
- High peak current capability

• ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{DSS}	Drain-Source Voltage	800	V
V _{GS}	Gate-Source Voltage	±20	V
I _D	Drain Current-Continuous	6	A
I _{DM}	Drain Current-Single Pulsed	18	A
P _D	Total Dissipation @T _C =25°C	83	W
T _J	Max. Operating Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~150	°C

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th(j-c)}	Channel-to-case thermal resistance	1.5	°C/W
R _{th(j-a)}	Channel-to-ambient thermal resistance	62	°C/W



isc N-Channel MOSFET Transistor
SPD06N80C3,ISPD06N80C3
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	800			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =V _{GS} ; I _D =0.25mA	2.1		3.9	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} =10V; I _D =3.8A			0.9	Ω
I _{GSS}	Gate-Source Leakage Current	V _{GS} =20V; V _{DS} =0V			0.1	μA
I _{DSS}	Drain-Source Leakage Current	V _{DS} =800V; V _{GS} = 0V			10	μA
V _{SD}	Diode forward voltage	I _F =6A, V _{GS} = 0V			1.2	V