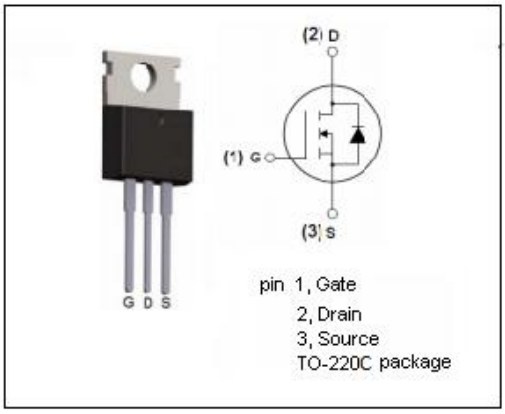
Isc N-Channel MOSFET Transistor SUP90N10-8M8P



• FEATURES

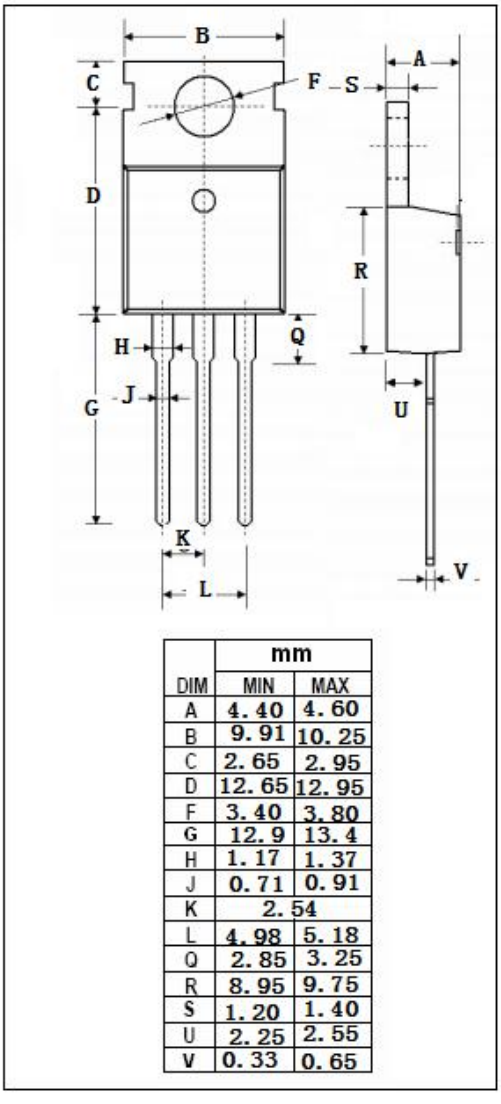
- TrenchFET® Power MOSFET
- 175 ° C Junction Temperature
- 100 % Rg and UIS Tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• DESCRITION

- Power Supply
  - Secondary Synchronous Rectification
- Industrial
- Primary Switch

• ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	100	V
V_{GSS}	Gate-Source Voltage	±20	V
I_D	Drain Current-Continuous@T_C=25℃ （ T_J=175℃） T_C=70℃	90 90	A
I_{DM}	Drain Current-Single Pulsed	240	A
P_D	Total Dissipation @T_C=25℃	300	W
T_{ch}	Max. Operating Junction Temperature	-55~175	℃
T_{stg}	Storage Temperature	-55~175	℃



DIM	mm MIN	MAX
A	4.40	4.60
B	9.91	10.25
C	2.65	2.95
D	12.65	12.95
F	3.40	3.80
G	12.9	13.4
H	1.17	1.37
J	0.71	0.91
K	2.54	
L	4.98	5.18
Q	2.85	3.25
R	8.95	9.75
S	1.20	1.40
U	2.25	2.55
V	0.33	0.65

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
Rth(ch-c)	Channel-to-case thermal resistance	0.5	℃/W
Rth(ch-a)	Channel-to-ambient thermal resistance	40	℃/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	100			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}= ±20V; I_D=0.25mA	2.5		4.5	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}= 10V; I_D=20A@ T_J=25℃ T_J=125℃		7.25 13.7	8.8 18.4	mΩ
I_{GSS}	Gate-Source Leakage Current	V_{GS}= ±20V;V_{DS}= 0V			±0.25	μA
I_{DSS}	Drain-Source Leakage Current	V_{DS}= 600V; V_{GS}= 0V; T_J=25℃ T_J=125℃ T_J=150℃			1 50 250	μA
V_{SDF}	Diode forward voltage	I_{DR} =30A, V_{GS} = 0 V		0.85	1.5	V