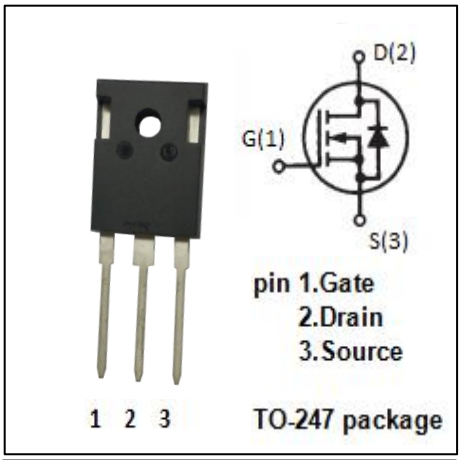
ISCF8108

eq E3M0280090D

SiC N-Channel MOSFET

FEATURES

- High Blocking Voltage with Low On-Resistance
- High Speed Switching with Low Capacitances
- Increased System Switching Frequency



APPLICATIONS

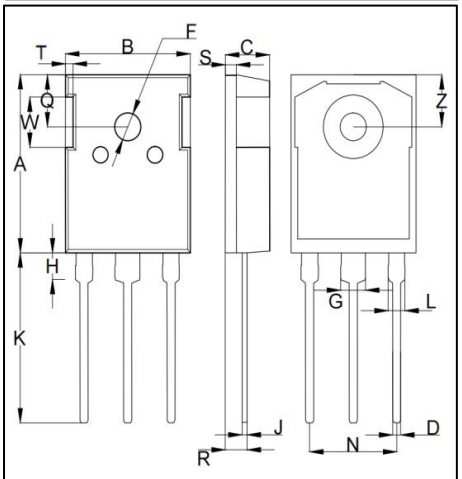
- High Voltage DC/DC Converters
- Automotive EV Battery Charges
- Renewable Energy
- Telecom Power Supplies

Absolute Maximum Ratings(TC=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	900	V
V_{GSS}	Gate-Source Opetation Voltage	-4/+15	V
I_D	Drain Current-Continuous	11.5	A
	Drain Current-Continuous @Tc= 100℃	7.5	A
I_{DM}	Drain Current-Single Pluse	22	A
P_D	Total Dissipation @T_C=25℃	54	W
T_J	Max. Operating Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	2.3	℃/W



DIM	mm		
	MIN	TYP.	MAX
A	19.80	20.65	21.50
B	15.40	15.65	15.90
C	4.70	5.00	5.30
D	0.90	1.08	1.26
F	3.50	3.70	3.90
G	2.70	3.00	3.30
H	3.90	4.10	4.30
J	0.50	0.60	0.70
K	19.50	20.00	20.50
L	1.90	2.05	2.20
N	10.80	10.90	11.00
Q	6.00	6.15	6.30
R	2.80	3.00	3.30
S	1.80	2.00	2.20
T	2.15	2.25	2.35
W	4.90	5.00	5.10
Z	6.00	6.15	6.30

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ELECTRICAL CHARACTERISTICS (T_C=25℃)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V_{GS}= 0V, I_D= 100uA	900	--	--	V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS} = V_{GS}, I_D = 1.2mA	1.7	--	3.5	V
$R_{DS(ON)}$	Drain-Source On-stage Resistance	V_{GS}= 15V, I_D= 7.5A	--	--	364	mΩ
I_{GSS}	Gate Source Leakage Current	V_{GS}= -4/+15V, V_{DS}= 0V	--	--	±250	nA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}= 900V, V_{GS} = 0V	--	--	100	uA
V_{SD}	Diode Forward Voltage	I_{SD}= 4A, V_{GS}= -4V	--	4.8	--	V

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