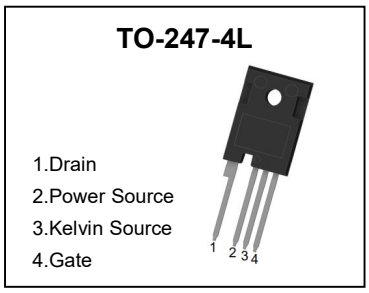
SZCJ

TO-247-4L Plastic-Encapsulate MOSFET

P120M2H N-Channel SiC power MOSFET



Key Performance Parameters

$V_{BR(DSS)}$	$R_{DS(on)}$TYP	I_D
1200V	14.5mΩ@18V	120A
	17mΩ@15V	

DESCRIPTION

The CJWQ014CP120M2H is used SZCJ 's SIC technology, using a completely new technology,it offers superior switching performance and higher reliability compared to silicon.

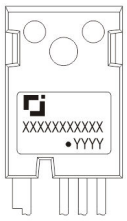
FEATURES

- High Blocking Voltage with Low On-Resistance
- High Speed Switching with Low Capacitances
- Easy to Parallel and Simple to Drive
- Resistant to Latch-Up
- Halogen Free, RoHS Compliant

APPLICATIONS

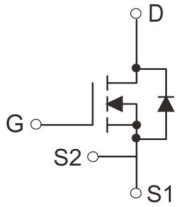
- EV Charging Station
- Power Factor Correction or DC/DC Converters
- Solar Inverters
- Motor Drives
- Switch Mode Power Supplys

MARKING



XXXXXXXXXXX = 014CP120M2H
Solid dot = Pin1 indicator.
YYYY = Code.

EQUIVALENT CIRCUIT



S1 : Power Source
S2 : Kelvin Source

ABSOLUTE MAXIMUM RATINGS (T_J=25℃ unless otherwise specified)

Parameter		Symbol	Value	Unit
Drain-Source Voltage		V_{DS}	1200	V
Gate-Source Voltage		V_{GS}	-10/+22	V
Continuous Drain Current	T_C =25℃	I_D	120	A
	T_C =100℃		85	
Pulsed Drain Current		I_{DM}①②	480	A
Avalanche Current		I_{AS}③	65	A
Single Pulsed Avalanche Energy		E_{AS}③	1102	mJ
Power Dissipation		P_D①	500	W
Operating Junction and Storage Temperature Range		T_J,T_{stg}	-55~+175	℃

Thermal Characteristics

Parameter	Symbol	Value		Unit
		Typ	Max	
Thermal Resistance from Junction to Case	$R_{\theta JC}$	0.2	0.3	℃/W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$⑥	30	45	℃/W

感谢您的支持，如需要完整规格书，请联系：<njpm.list@szcjsemi.com >，谢谢！Thank you for your support. If you need a complete datasheet, please contact: <njpm.list@szcjsemi.com >. Thank you!