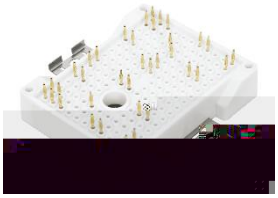
WMH004M120G1SA

N-Channel SiC Power MOSFET



Electrical Characteristics (T_C=25 unless otherwise specified)

Symbol	Parameter	Min.	Typ.	Max.	Unit	Test Conditions	Note
$V_{GS(th)}$	Gate Threshold Voltage	2.0	2.8	4.0	V	V_{DS}=V_{GS}, I_D=100mA	
		/	2.0	/		V_{DS}=V_{GS}, I_D=100mA, T_J=175	
I_{DSS}	Zero Gate Voltage Drain Current	/	/	100	μA	V_{DS}=1200V, V_{GS}=0V	
I_{GSS+}	Gate-Source Leakage Current	/	/	500	nA	V_{DS}=0V, V_{GS}=23V	
I_{GSS-}	Gate-Source Leakage Current	/	/	500	nA	V_{DS}=0V, V_{GS}=-10V	
$R_{DS(on)}$	Drain-Source On-State Resistance	/	3.75		mΩ	V_{GS}=18V, I_D=220A	
		/	6.25	/		V_{GS}=18V, I_D=220A, T_J=175	
g_{fs}	Transconductance	/	160	/	S	V_{DS}=20V, I_{DS}=220A	
		/	140	/		V_{DS}=20V, I_{DS}=220A, T_J=175	
C_{iss}							

Package Characteristics

Symbol	Parameter	Note or test condition	Characteristics			Unit
			Min.	Typ.	Max.	
	Internal isolation	Basic insulation	/	Si_3N_4	/	
d_{Creep}	Creepage distance	terminal to heatsink	/	12.0	/	mm
		terminal to terminal	/	6.5	/	
d_{Clear}	Clearance	terminal to heatsink	/	10.0	/	mm
		terminal to terminal	/	5.0	/	
CTI	Comperative tracking index		/	>200	/	
L_p	Stray inductance module					