MHCHXM®

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ECR2065AN

Silicon Carbide Schottky Diode

V_{RRM}	650V
I_F	20A(Tc=138°C)
Q_C	41nC

RoHS Reach

■ Features

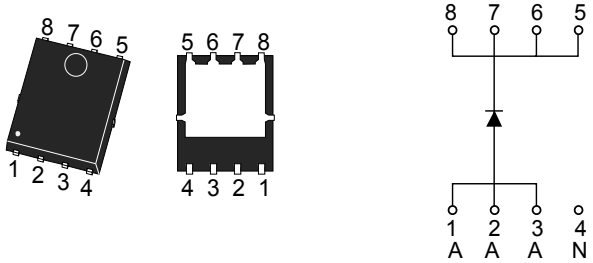
- High surge current capability
- No reverse recovery
- Positive Temperature Coefficient
- Easy to paralleling
- Halogen-free / RoHS compliant
- Compliance with EU REACH

■ Benefits

- High-speed switching
- Low heat dissipation requirements
- Reduce size and cost of the system
- High-reliability
- System efficiency improvement

■ Applications

- Solar inverter
- Power factor correction
- Data Center
- Switch mode power supply



Package:PDFN5060-8L

ECR2065AN-HF

HF=Halogen Free

Absolute Maximum Ratings (Tc=25°C)

Symbol	Parameter		Data	Unit
V_{RRM}	Repetitisve Peak Reverse Voltage		650	V
I_F	Continuous Forward Current	Tc=135°C	25	A
		Tc=138°C	20	A
I_{FSM}	Non-Repetitive Forward Surge Current	Tc=25°C,Tp=8.3mS,Half Sine Pulse	140	A
P_{tot}	Power Dissipation	Tc=25°C	42	W
T_J	Operating Junction Temperature		-55～175	°C
T_{STG}	Storage Temperature		-55～175	°C
$R_{\theta JC}$	Thermal Resistance Junction to Case (per leg)		TYP:3.5	°C/W

Electricity Character Per Diode (Tc=25°C)

Item	Test Condition		Value(min)	Value(typ)	Value(max)	Unit
V_B	—	Tc=25°C	650	—	—	V
V_F	IF=20A	Tc=25°C	—	1.3	1.5	V
		Tc=175°C	—	1.4	—	V
I_R	VR=650V	Tc=25°C	—	10	100	uA
		Tc=175°C	—	40	—	uA
C	f=1MHZ	VR=1V	—	980	—	pF
		VR=200V	—	124	—	pF
		VR=400V	—	90	—	pF
Q_C	VR=400V,IF=20A,di/dt=200A/μS		—	41	—	nC

Electrical Characteristic Curves

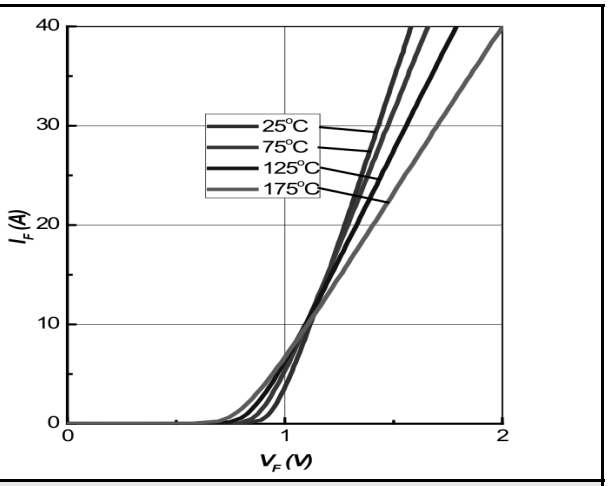


Figure 1 Forward Characteristics

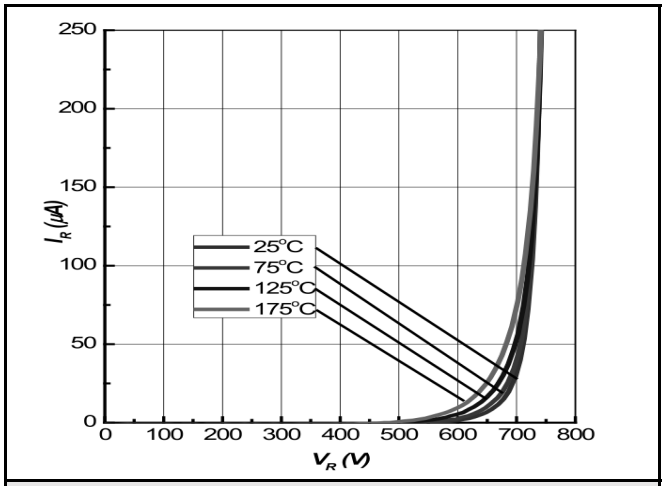


Figure 2 Reverse Characteristics

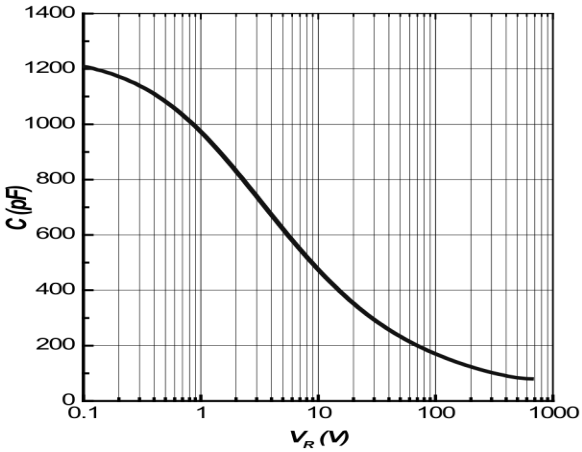


Figure 3 Capacitance vs. Reverse Voltage

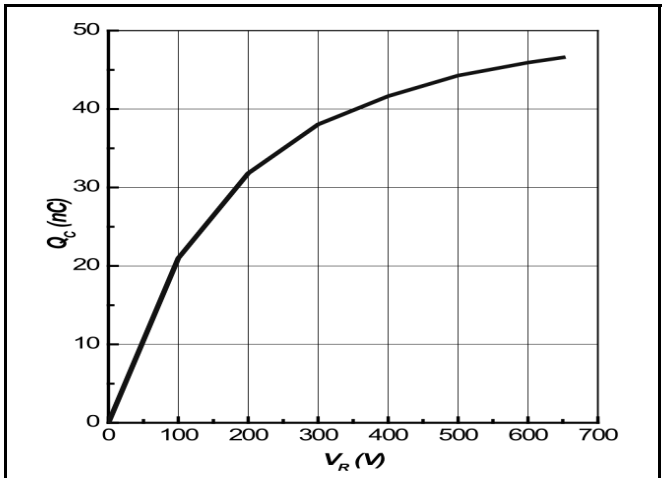
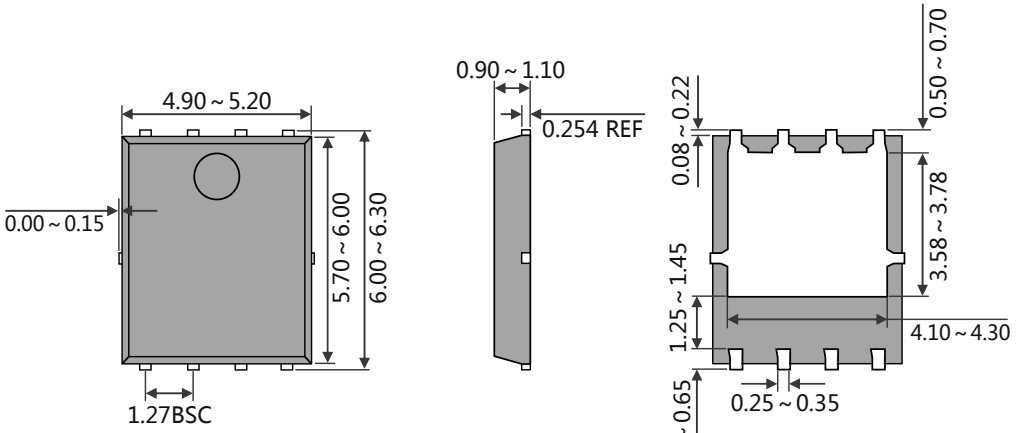


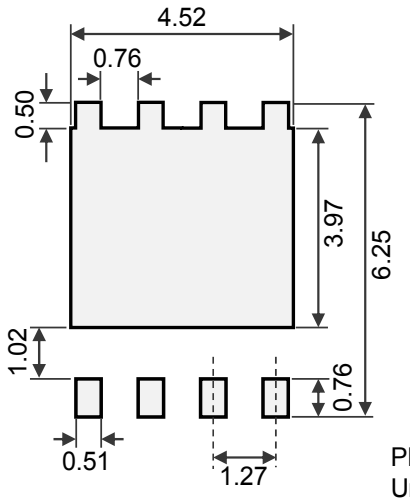
Figure 4 Capacitance Charge vs. Reverse Voltage

Package Outline Dimensions



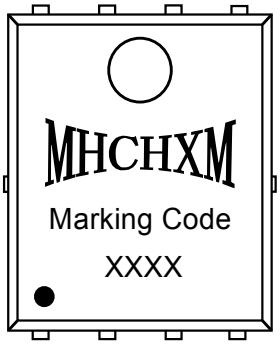
PDFN5060-8L
Unit:mm

Suggested Solder Pad Layout



PDFN5060-8L
Unnoted Tolerance:±0.05
Unit:mm

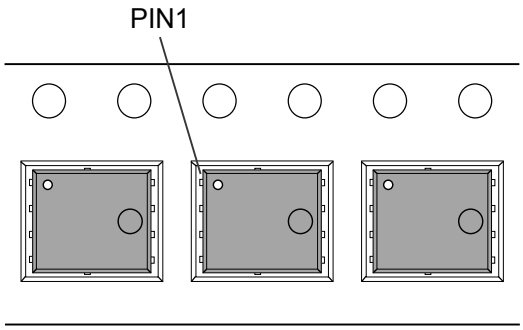
Marking Information



"MHCHXM"= Product Logo
"Marking Code"= The Following
"XXXX"= Date Code Marking

Marking Code	Part Number
ECR2065AN	ECR2065AN-HF

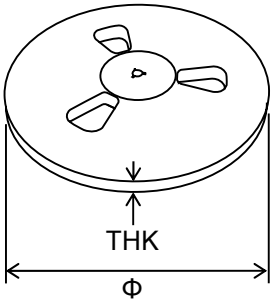
The Orientation Of The Product In The Carrier Tape



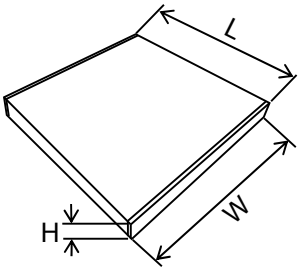
Packing Information

Packaging	Part Number	Quantity(pcs)	Size(mm)
Reel	Reel	5000	Φ330×THK15
	Inner Box	10000	L355×W335×H48
	Outer Box	80000	L415×W375×H360

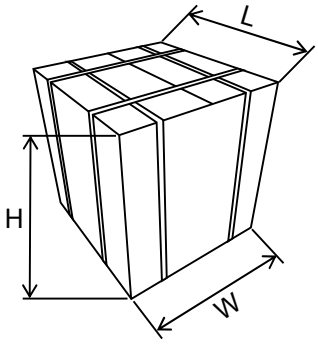
Packaging:Reel



Reel



Reel Inner Box



Reel Outer Box

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