

■ Features

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

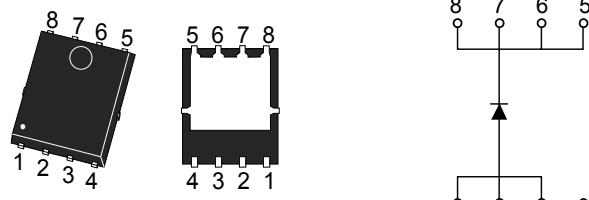
■ Benefits

- 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

V_{RRM}	650V
I_F	8A($T_c=156^\circ C$)
Q_C	21nC



Package:PDFN5060-8L

ECR865AN-HF

HF=Halogen Free

Absolute Maximum Ratings ($T_c=25^\circ C$)

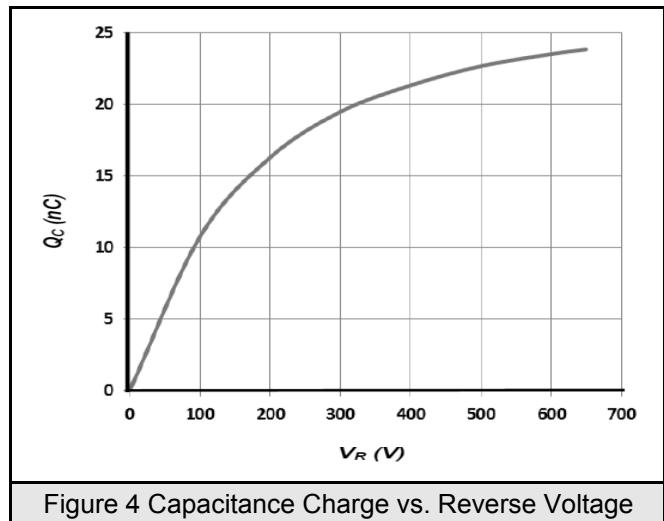
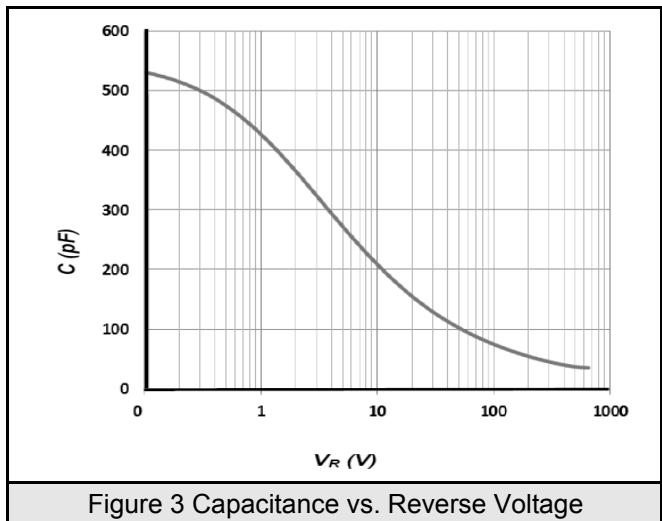
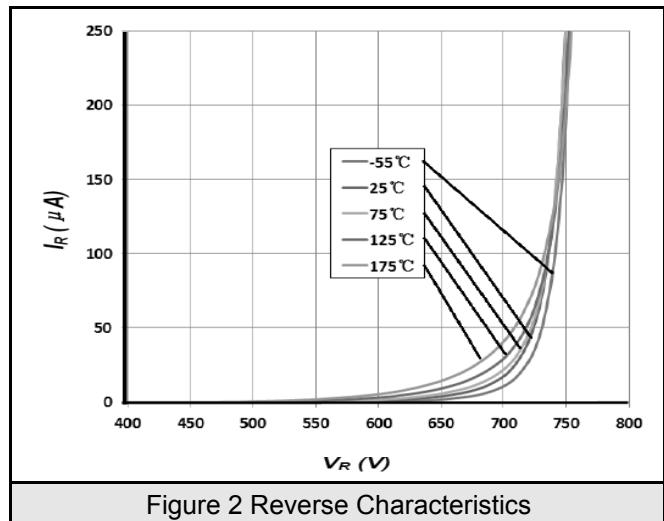
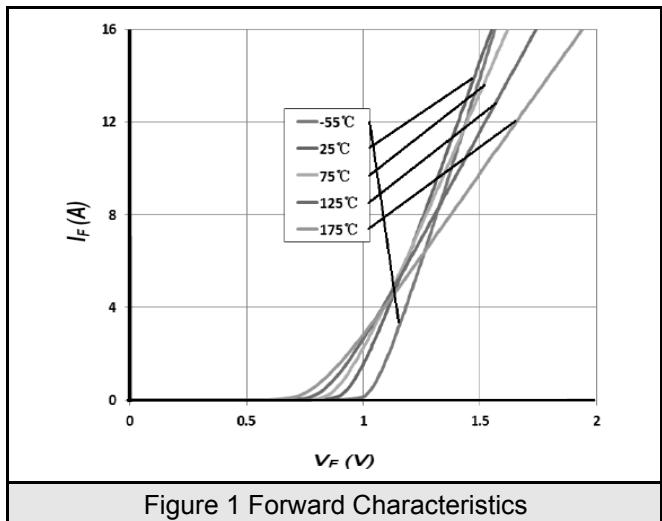
Symbol	Parameter		Data	Unit
V_{RRM}	Repetititve Peak Reverse Voltage		650	V
I_F	Continuous Forward Current	$T_c=25^\circ C$	31	A
		$T_c=135^\circ C$	14	A
		$T_c=156^\circ C$	8	A
I_{FSM}	Non-Repetitive Forward Surge Current	$T_c=25^\circ C, T_p=8.3mS, \text{Half Sine Pulse}$	70	A
P_{tot}	Power Dissipation	$T_c=25^\circ C$	107	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:1.4	°C/W

Electricity Character Per Diode ($T_c=25^\circ C$)

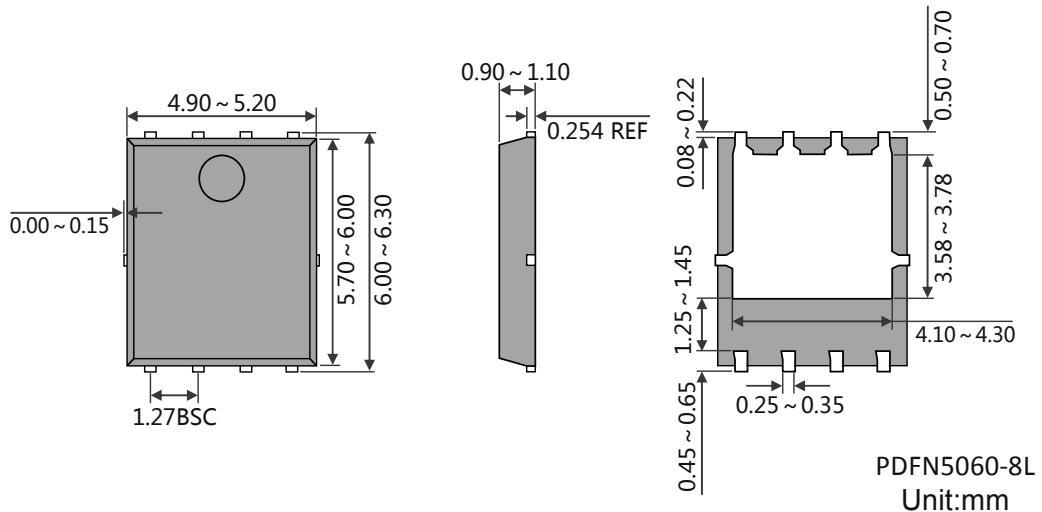
Item	Test Condition		Value(min)	Value(typ)	Value(max)	Unit
V_B	—	$T_c=25^\circ C$	650	—	—	V
V_F	$I_F=8A$	$T_c=25^\circ C$	—	1.27	1.5	V
		$T_c=175^\circ C$	—	1.38	—	V
I_R	$VR=650V$	$T_c=25^\circ C$	—	5	50	uA
		$T_c=175^\circ C$	—	25	—	uA
C	$f=1MHZ$	$VR=1V$	—	430	—	pF
		$VR=200V$	—	54	—	pF
		$VR=400V$	—	39	—	pF
Q_C	$VR=400V, I_F=8A, dI/dt=200A/\mu S$		—	21	—	nC



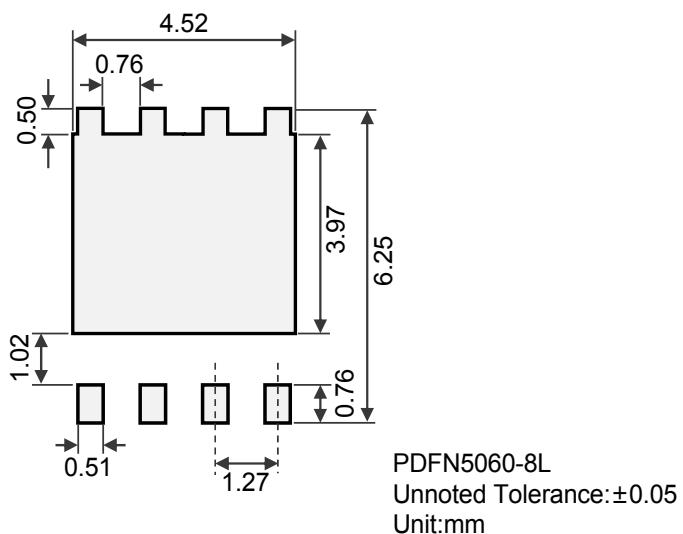
Electrical Characteristic Curves



Package Outline Dimensions



Suggested Solder Pad Layout



Marking Information

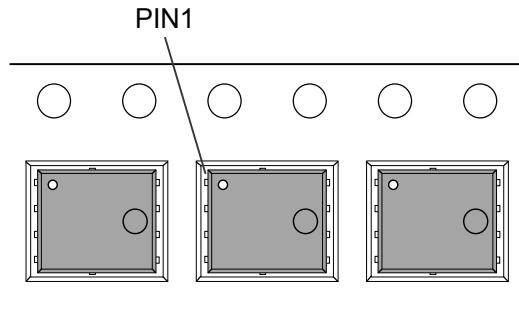


"MHCHXM"= Product Logo
"Marking Code"= The Following
"XXXX"= Date Code Marking

Marking Code	Part Number
ECR865AN	ECR865AN-HF



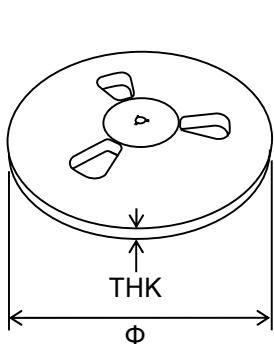
The Orientation Of The Product In The Carrier Tape



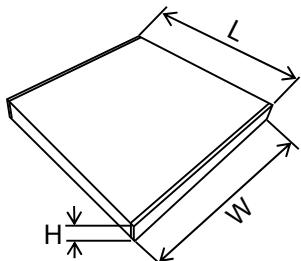
Packing Information

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

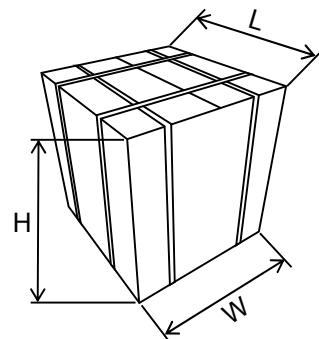
Packaging:Reel



Reel



Reel Inner Box



Reel Outer Box



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2. The graphs shown in this datasheet are representing typical data only and do not show guaranteed values.
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