

■ Features

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

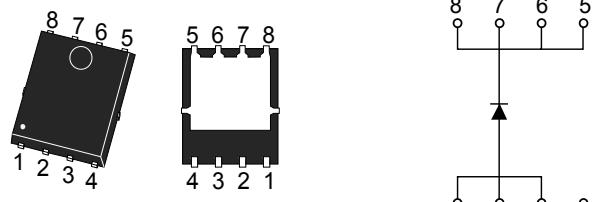
■ Benefits

- 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	6A($T_c=130^\circ C$)
Q_C	17nC



Package:PDFN5060-8L

ECR665AN-HF

HF=Halogen Free

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

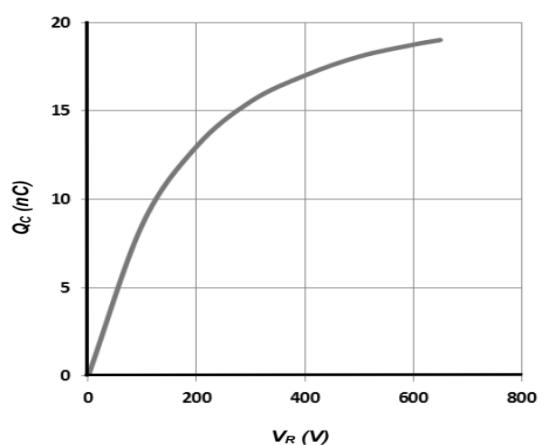
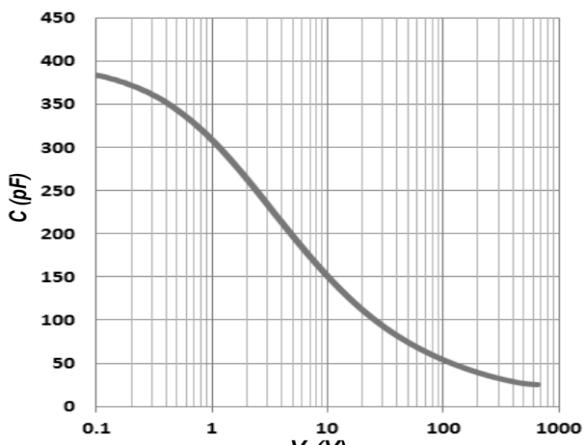
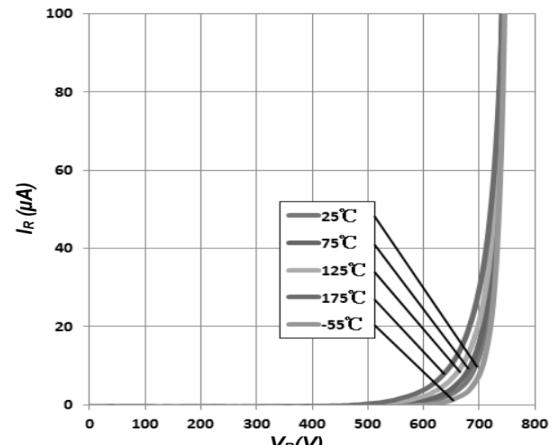
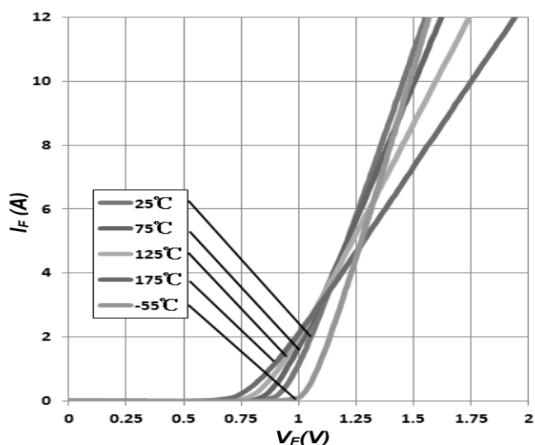
Symbol	Parameter		Data	Unit
V_{RRM}	Repetititve Peak Reverse Voltage		650	V
I_F	Continuous Forward Current	$T_c=110^\circ C$	7.5	A
		$T_c=130^\circ C$	6	A
I_{FSM}	Non-Repetitive Forward Surge Current		40	A
P_{tot}	Power Dissipation	$T_c=25^\circ C$	30	W
T_J	Operating Junction Temperature		-55~175	°C
T_{STG}	Storage Temperature		-55~175	°C
R_{eJC}	Thermal Resistance Junction to Case (per leg)		TYP:5	°C/W

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

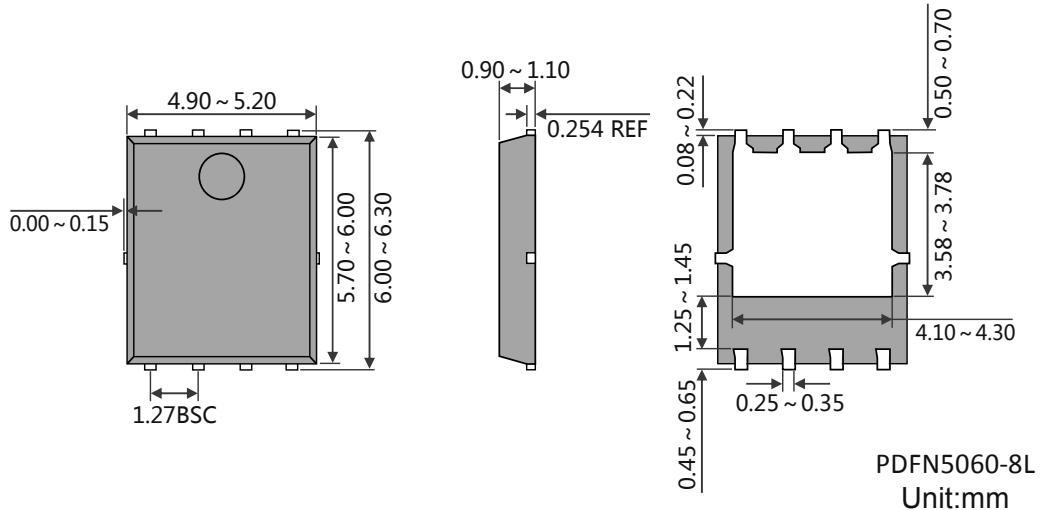
Item	Test Condition		Value(min)	Value(typ)	Value(max)	Unit
V_B	—	$T_c=25^\circ C$	650	—	—	V
V_F	IF=6A	$T_c=25^\circ C$	—	1.3	1.5	V
		$T_c=175^\circ C$	—	1.38	—	V
I_R	VR=650V	$T_c=25^\circ C$	—	4	50	uA
		$T_c=175^\circ C$	—	20	—	uA
C	f=1MHZ	VR=1V	—	305	—	pF
		VR=200V	—	39	—	pF
		VR=400V	—	28	—	pF
Q_C	VR=400V,IF=6A,di/dt=200A/μS		—	17	—	nC



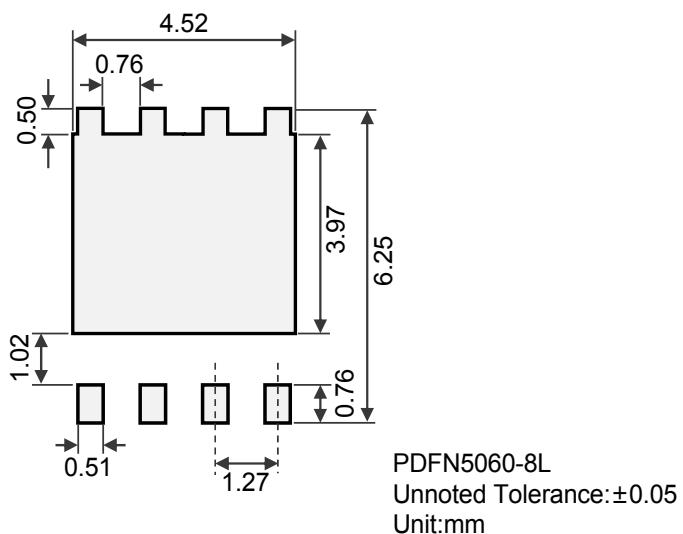
Electrical Characteristic Curves



Package Outline Dimensions



Suggested Solder Pad Layout



Marking Information

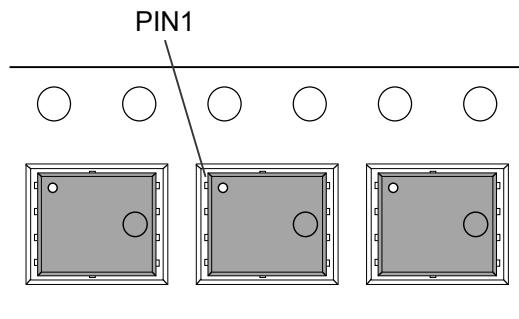


"MHCHXM"= Product Logo
"Marking Code"= The Following
"XXXX"= Date Code Marking

Marking Code	Part Number
ECR665AN	ECR665AN-HF



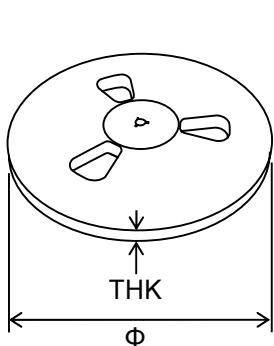
The Orientation Of The Product In The Carrier Tape



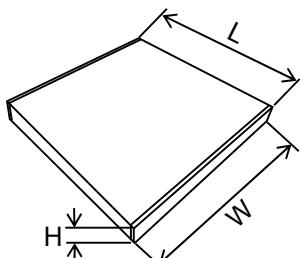
Packing Information

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

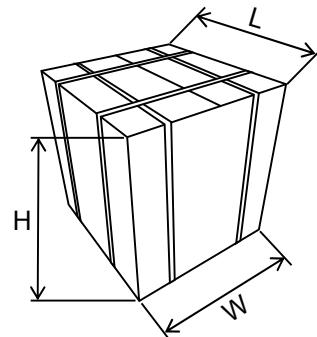
Packaging:Reel



Reel



Reel Inner Box



Reel Outer Box



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