

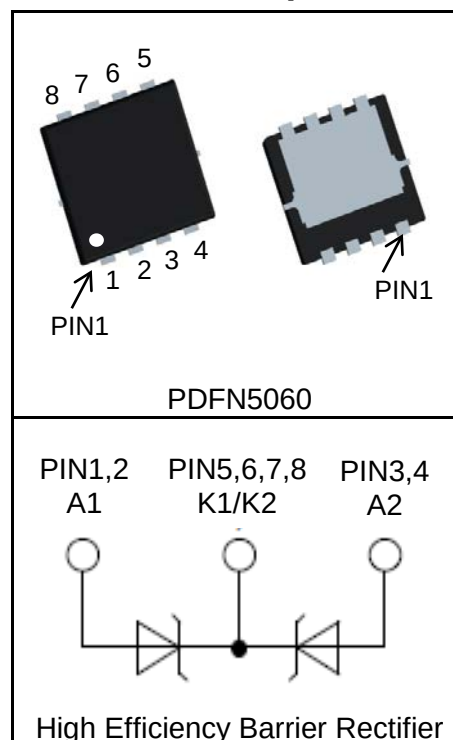
Features

- $V_{RRM} = 60V$
 $I_{F(AV)} = 2 \times 15A$
- HEBR® Technology
- Ultra-Low Forward Voltage Drop
- Low Power Loss and High Efficiency
- High Surge Capability
- Low Leakage Current
- Lead Free and Green Devices Available

Applications

- Rectifiers in SMPS
- AC/DC Adaptors
- DC-DC Converters

Pin Description



Absolute Maximum Ratings

Symbol	Parameter		Rating	Unit
Common Ratings (T _A =25°C Unless Otherwise Noted)				
V _{RRM} ^①	Maximum Repetitive Reverse Voltage		60	V
V _R ^①	Maximum DC Reverse Voltage		60	V
V _{R(RMS)} ^①	RMS Reverse Voltage		42	V
I _{F(AV)}	Average Rectified Forward Current, T _C =130°C	per Device	30	A
		per Diode	15	A
I _{FSM}	Peak Forward Surge Current,8.3ms Half Sine Wave		430	A
T _{STG}	Storage Temperature Range		-55 to 150	°C
T _J	Operating Junction Temperature Range		-55 to 150	°C
Mounted on Large Heat Sink				
R _{θJC}	Thermal Resistance-Junction to Case		1	°C/W
R _{θJA} ^②	Thermal Resistance-Junction to Ambient		30	°C/W

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ Unless Otherwise Noted)

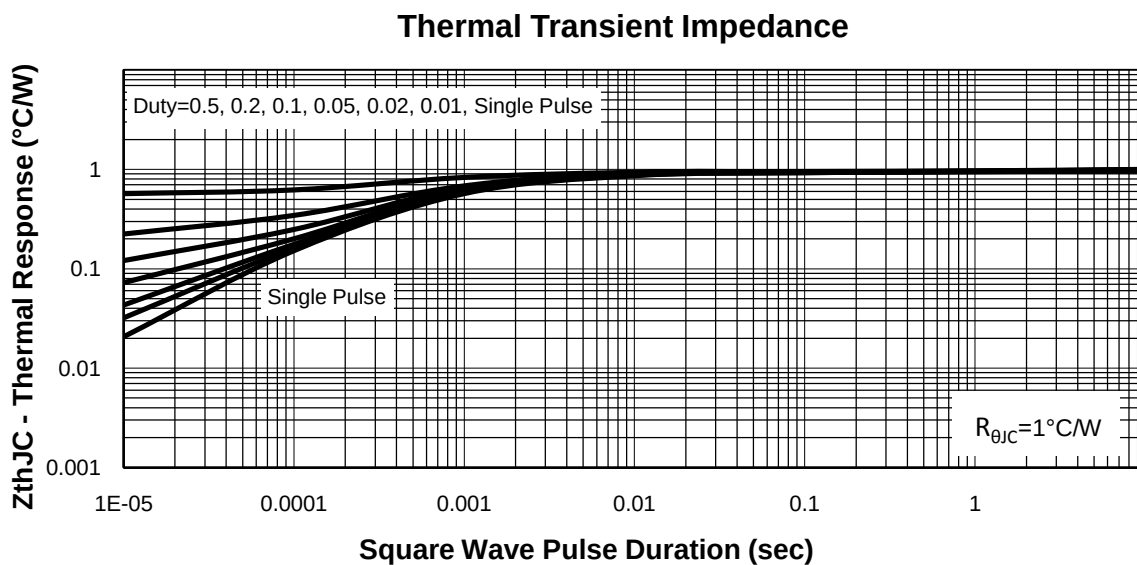
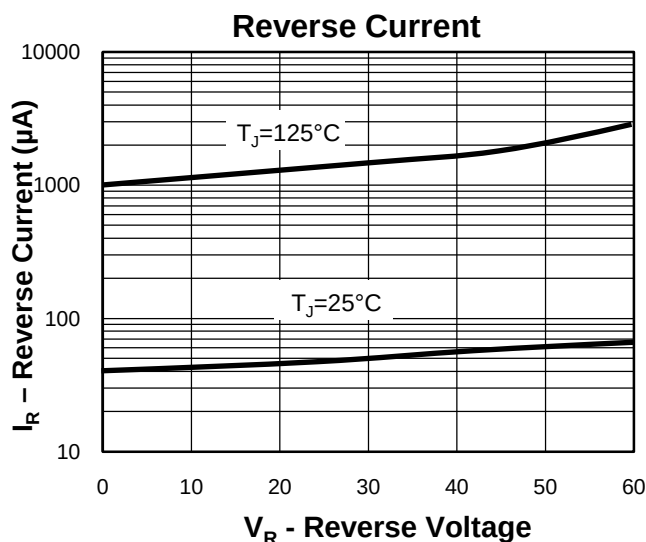
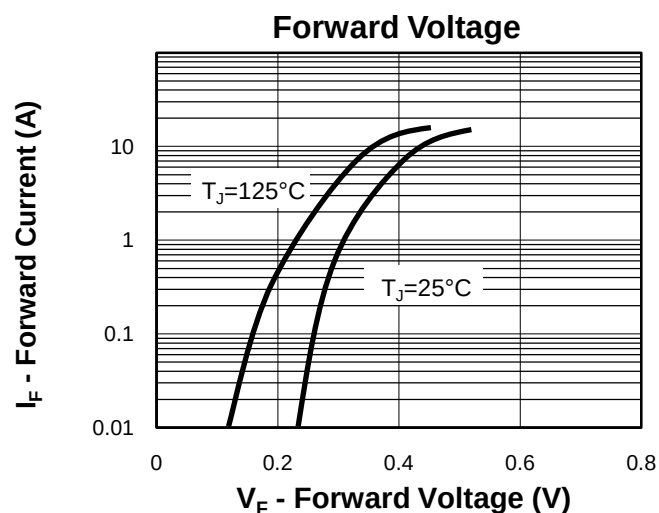
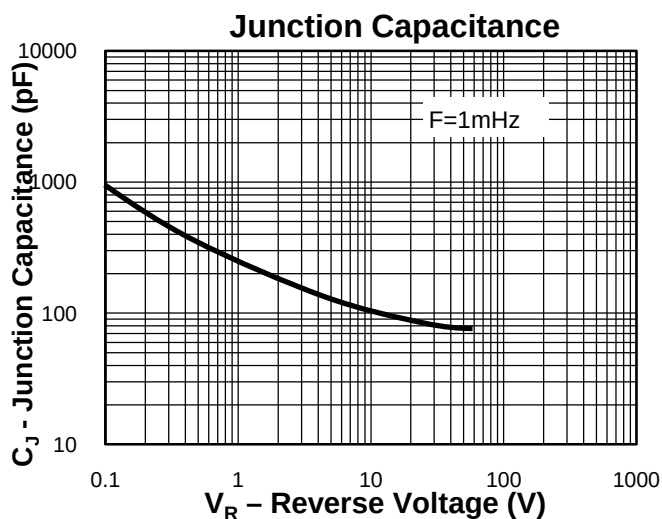
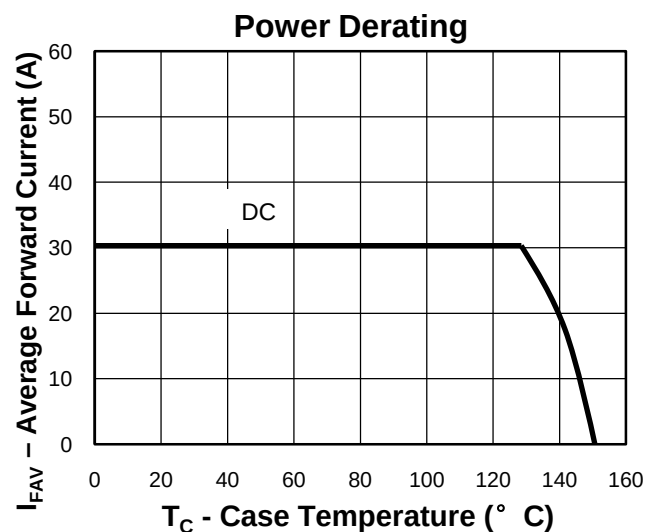
Symbol	Parameter	Test Condition	RUS6030M			Unit
			Min.	Typ.	Max.	
Static Characteristics						
V _{(BR)R} ^③	Reverse Breakdown Voltage per Diode	I _R =300μA	60			V
I _R ^③	Reverse Leakage Current per Diode	V _R =60V, T _C =25°C		100	300	μA
		V _R =60V, T _C =125°C			5	mA
V _F ^③	Forward Voltage Drop per Diode	I _F =2A, T _C =25°C		0.32	0.35	V
		I _F =5A, T _C =25°C		0.39	0.43	V
		I _F =10A, T _C =25°C		0.48	0.52	V
		I _F =15A, T _C =25°C		0.54	0.59	V
		I _F =15A, T _C =125°C		0.50	0.54	V

- Notes:
- ① For $T_A > 25^{\circ}\text{C}$ the derating of V_R and I_F has to be considered.
 - ② Polymide PCB, 2oz. Copper. Cathode pad dimensions 18.8mm x 14.4mm. Anode pad dimensions 5.6mm x 14.4mm.
 - ③ Pulse test, pulse width $\leq 300\mu\text{s}$, duty cycle $\leq 2\%$.

Ordering and Marking Information

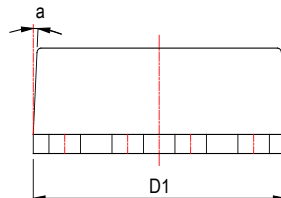
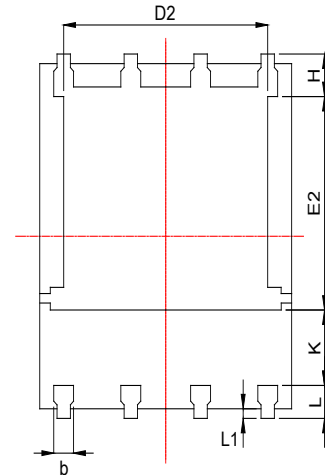
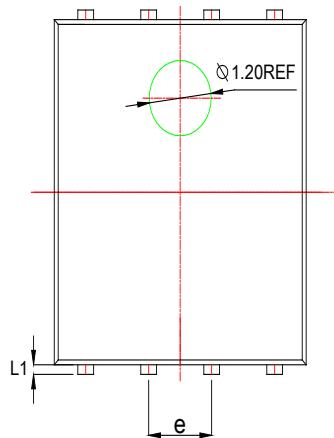
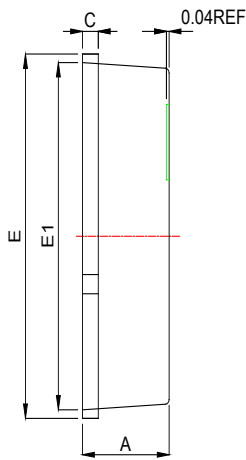
Device	Marking	Package	Packaging	Quantity	Reel Size	Tape width
RUS6030M	RUS6030M	PDFN5060	Tape&Reel	3000	13"	12mm

Typical Characteristics

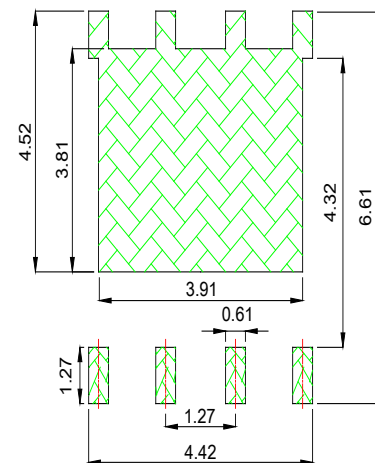


Package Information

PDFN5060



Land Pattern
(Only for Reference)



SYMBOL	MM			INCH		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.90	1.00	1.10	0.035	0.039	0.043
b	0.33	0.42	0.51	0.013	0.017	0.020
c	0.20	0.25	0.30	0.008	0.010	0.012
D1	4.80	4.90	5.00	0.189	0.193	0.197
D2	3.61	3.79	3.96	0.142	0.149	0.156
E	5.90	6.00	6.10	0.232	0.236	0.240
E1	5.65	5.75	5.85	0.222	0.226	0.230
E2	3.38	3.58	3.78	0.133	0.141	0.149
e	1.27 BSC			0.005 BSC		
H	0.41	0.51	0.61	0.016	0.020	0.024
k	1.10			0.043		
L	0.51	0.61	0.71	0.020	0.024	0.028
L1	0.06	0.13	0.20	0.002	0.005	0.008
a	0°		12°	0°		12°

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