

# RECTIFIER ASSEMBLIES

Single Phase Full Wave Bridges

PMC Power Modules

High Voltage, High Current

PMC101-PMC105  
 PMC101X-PMC105X  
 PMC201-PMC203  
 PMC201X-PMC203X

## FEATURES

- PIV: From 2.5kV to 60kV
- 12A in Oil
- 300A Surge Current
- Fast Recovery
- Low Leakage

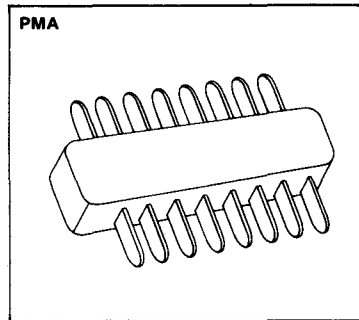
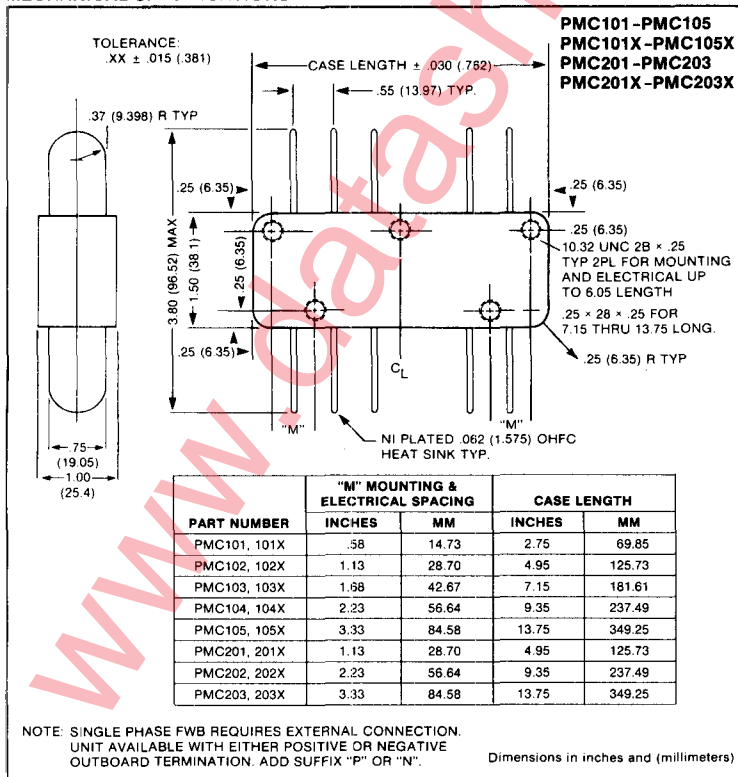
## DESCRIPTION

The PMC POWER MODULE is a densely packaged single phase high voltage bridge rectifier assembly. Typical applications include high power transmitters, cable fault detectors, and shipboard radar systems, to name a few.

## ABSOLUTE MAXIMUM RATINGS

Peak Inverse Voltage ..... 2.5kV to 15kV  
 Maximum Average Rectified Current ..... See Electrical Specifications  
 Maximum One Cycle Surge 8.3mS ..... See Electrical Specifications  
 Operating and Storage Temperature Range ..... -65°C to +150°C

## MECHANICAL SPECIFICATIONS



VIII

ELECTRICAL SPECIFICATIONS (at 25°C unless noted)						MAXIMUM RATINGS				"M" Mounting & Electrical Spacing		Case Length		
Maximum Reverse Recovery Time		Peak Inverse Voltage	Maximum Reverse Current @ PIV		Maximum Forward Voltage	Maximum Average Rectified Current†			Maximum One Cycle Surge 8.3mS					
T <sub>RR</sub> *		PIV	I <sub>R</sub>		V <sub>F</sub>	I <sub>O</sub> @ 50°C			I <sub>F</sub> (surge)					
Type	Type	kV	25°C μA	100°C μA	@ 3.0A Peak V	NC A**	FA A***	Oil A	A					
PMC101	PMC101X	2.5	2	100	5	2	4.8	6	150	.58	14.73	2.75	69.85	
PMC102	PMC102X	5	2	100	10	2	4.8	6	150	1.13	28.70	4.95	125.73	
PMC103	PMC103X	7.5	2	100	15	2	4.8	6	150	1.68	42.67	7.15	181.61	
PMC104	PMC104X	10	2	100	20	2	4.8	6	150	2.23	56.64	9.35	237.49	
PMC105	PMC105X	15	2	100	30	2	4.8	6	150	3.33	84.58	13.75	349.25	
						@ 6.0A Peak								
PMC201	PMC201X	2.5	2	100	5	4	9.6	12	300	1.13	28.70	4.95	125.73	
PMC202	PMC202X	5	2	100	10	4	9.6	12	300	2.23	56.64	9.35	237.49	
PMC203	PMC203X	7.5	2	100	15	4	9.6	12	300	3.33	84.58	13.75	349.25	

- \* Reverse recovery test conditions for each cell prior to assembly I<sub>F</sub> = 400mA, I<sub>R</sub> = 800mA, I<sub>RR</sub> = 200mA.
  - \*\* For natural air convection operation unit must be mounted horizontally with no air restrictions.
  - \*\*\* Forced air ratings are with a minimum air flow of (TBD).
- Notes:
1. For operation in air unit to be corona free to (TBD) test conditions (TBD).
  2. Junction to heat sink thermal resistance (TBD).
  3. Consult factory for series and/or parallel applications for special matching.
  4. I<sub>O</sub> ratings @ 50°C linearly derate to 0 @ 150°C.
  5. Oil and air operation any position.