

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

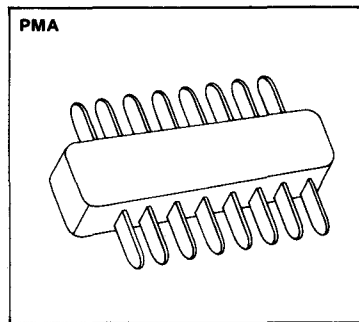
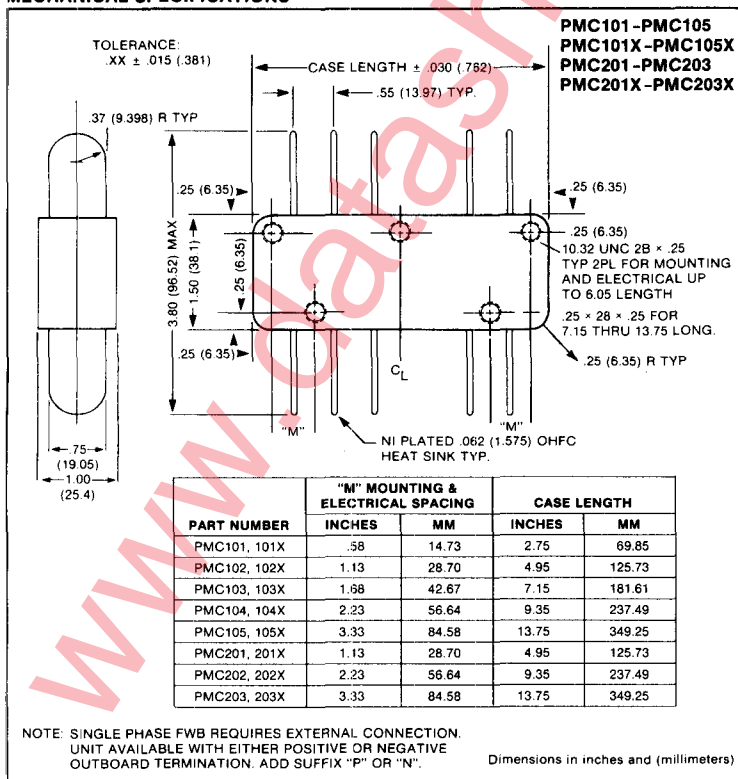
DESCRIPTION

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 _{RR} *		PIV	I _R		V _F	I _O @ 50°C			I _F (surge)				
Type	Type	kV	25°C μA	100°C μA	@ 3.0A Peak V	NC A**	FA A***	Oil A	A				
2μS	250nS									Inches	MM	Inches	MM
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_F = 400mA, I_R = 800mA, I_{RR} = 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_O ratings @ 50°C linearly derate to 0 @ 150°C.
 5. Oil and air operation any position.