

15 AMP HALF BRIDGE DUAL RECTIFIERS

PMR-27K,
PMR-31K



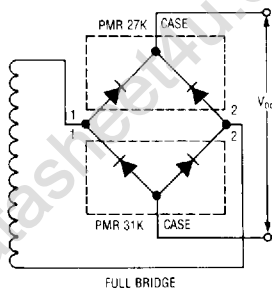
FEATURES

- Maximum operating junction temperature of 200°C
- Replaces two stud mount rectifiers

DESCRIPTION

The PMR 27K, 31K Series of three terminal monolithic, full wave, center tap rectifiers have been designed for use in power supplies. The PMR 27K devices are a common cathode configuration; the PMR 31K devices are a common anode configuration. Both configurations are available in peak reverse voltage ranges of 50, 100 and 200 Volts with an average forward current rating of 15 Amps per diode. The PMR 27K, 31K Series of rectifiers are hermetically sealed in steel TO-3 packages to provide high reliability and low thermal resistance.

BLOCK DIAGRAM



ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	MAXIMUM	UNITS
Peak Repetitive Reverse Voltage PMR 27K, 31K050 PMR 27K, 31K100 PMR 27K, 31K200	V_{RRM}	50 100 200	Volts
RMS Reverse Voltage PMR 27K, 31K050 PMR 27K, 31K100 PMR 27K, 31K200	$V_{R(RMS)}$	35 70 141	Volts
Average Rectified Forward Current	I_O	15	Amps
Peak Non-Repetitive Surge Current (1/2 cycle)	I_{FSM}	250	Amps
Fusing Data	I^2T	240	$A_{RMS}^2 \cdot Sec$
Power Dissipation ¹	P_D	42	Watts
Thermal Resistance Junction to Case	θ_{JC}	1.0	°C/Watts
Operating Junction and Storage Temperature Range	T_J T_{SIG}	-65 to 200	°C
Lead Temperature (Soldering, 60 Seconds)	T_{LEAD}	300	°C

¹ For operation above 150°C T_{CASE} , derate at 1W/°C

DEVICE SELECTION GUIDE

DEVICE	VOLTAGE RATING	TYPE COMMON
PMR 27K050	50	Cathode
PMR 27K100	100	Cathode
PMR 27K200	200	Cathode
PMR 31K050	050	Anode
PMR 31K100	100	Anode
PMR 31K200	200	Anode

PMR-27K,
PMR-31K

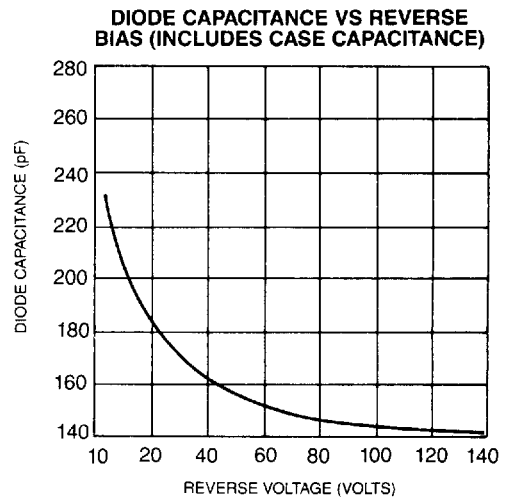
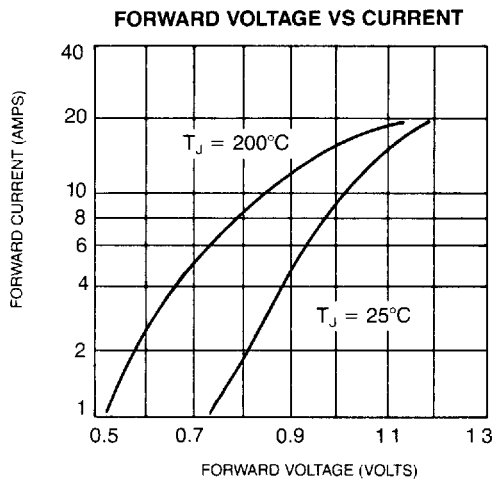
15 AMP HALF BRIDGE DUAL RECTIFIERS

ELECTRICAL CHARACTERISTICS

Electrical characteristics are specified for $T_J = 0$ to 200°C .

PARAMETER	SYMBOL	TEST CONDITIONS	TEST LIMITS		UNITS
			MINIMUM	MAXIMUM	
Average Forward Voltage Drop (Full Cycle)	$V_{F(AVG)}$	$I_D = 15\text{A}; f = 30\text{Hz}$		1.4	Volts
Maximum Reverse Current	I_{RM}	Rated Voltage		10	mAdc

OPERATIONAL DATA

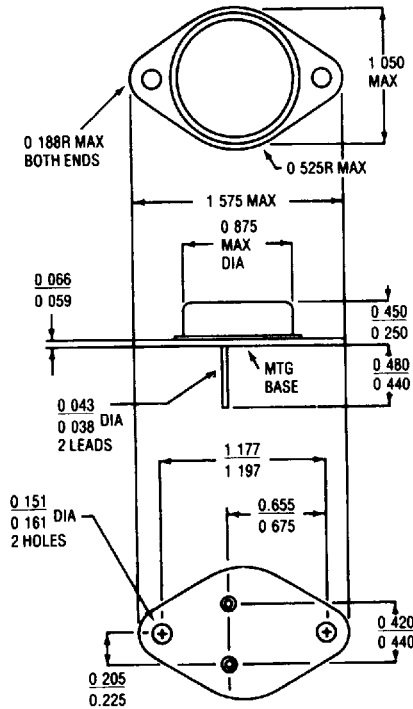


17

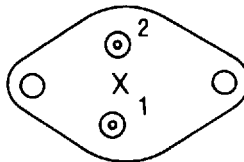
15 AMP HALF BRIDGE DUAL RECTIFIERS

PMR-27K,
PMR-31K

DEVICE OUTLINE



Bottom View



PMR 27K

1 - Anode
2 - Anode
Case is Common
Cathode

PMR 31K

1 - Cathode
2 - Cathode
Case is Common
Anode

NOTE: Case temperature measured at point X.
All dimensions are in inches.