

**MDA920A1  
thru  
MDA920A9**

**Designers Data Sheet**

**MINIATURE INTEGRAL DIODE ASSEMBLIES**

... passivated, diffused-silicon dice interconnected and transfer molded into voidless hybrid rectifier circuit assemblies.

- Large Inrush Surge Capability -- 45 A (For 1.0 Cycle)
- Efficient Thermal Management Provides Maximum Power Handling in Minimum Space

**Designers Data for "Worst Case" Conditions**

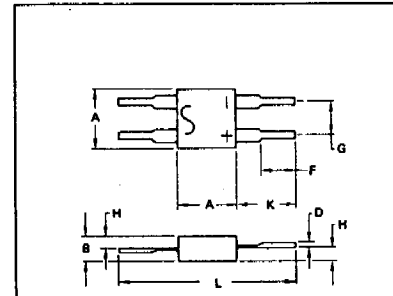
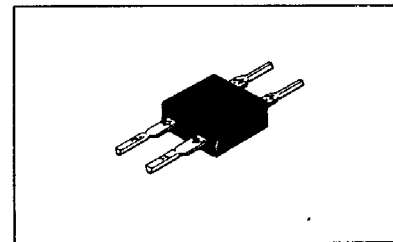
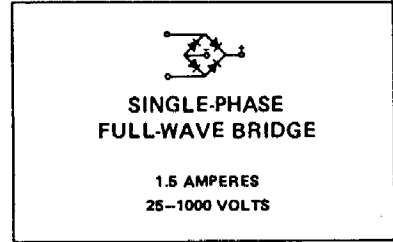
The Designers Data Sheet permits the design of most circuits entirely from the information presented. Limit curves -- representing boundaries on device characteristics -- are given to facilitate "worst case" design.

MAXIMUM RATINGS											
Rating (Per Leg)	Symbol	A1	A2	A3	A4	A5	A6	A7	A8	A9	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$										Volts
Working Peak Reverse Voltage	$V_{RWM}$	25	50	100	200	300	400	600	800	1000	Volts
DC Blocking Voltage	$V_R$										Volts
DC Output Voltage	$V_{dc}$	15	30	62	124	185	250	380	500	620	Volts
	$V_{dc}$	25	50	100	200	300	400	600	800	1000	Volts
Sine Wave RMS Input Voltage	$V_R(RMS)$	18	35	70	140	210	280	420	560	700	Volts
Average Rectified Forward Current (single phase bridge resistive load, 60 Hz, see Figure 6, $T_A = 50^\circ C$ )	$I_O$	1.5									Amp
Non-Repetitive Peak Surge Current, (see Figure 2) rated load, $T_J = 175^\circ C$	$I_{FSM}$	45 for 1 cycle									Amp
Operating and Storage Junction Temperature Range	$T_J, T_{stg}$	-55 to +175									$^\circ C$

ELECTRICAL CHARACTERISTICS			
Characteristic	Symbol	Max	Unit
Maximum Instantaneous Forward Voltage Drop (Per Leg) ( $I_F = 2.4$ Amp, $T_J = 25^\circ C$ ) Figure 1	$V_F$	1.2	Volts
Maximum Reverse Current (Rated dc Voltage across ac terminals, $T_J = 25^\circ C$ )	$I_R$	20	$\mu A$

THERMAL CHARACTERISTICS			
Characteristic	Symbol	Max	Unit
Effective Bridge Thermal Resistance, Junction to Ambient (Full-Wave Bridge Operation, Typical Printed Circuit Board Mounting)	$R_{\theta JA}$	50	$^\circ C/W$

MECHANICAL CHARACTERISTICS	
<b>CASE:</b> Transfer-molded plastic encapsulation.	<b>MOUNTING POSITION:</b> Any
<b>POLARITY:</b> Terminal-designation embossed on case	<b>WEIGHT:</b> 1.0 gram (approx)
+DC output	<b>TERMINALS:</b> Readily solderable connections, corrosion resistant.
-DC output	
~AC input	



NOTES:  
1. LEAD DIM "D" TO BE MEASURED WITHIN "F"  
2. LEADS FORMED TO FIT INTO HOLE 0.94 mm (0.037) MIN.

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	5.10	6.73	0.240	0.265
B	2.29	2.79	0.090	0.110
D	0.51	0.94	0.020	0.037
F	3.66	6.35	0.140	0.250
E	3.80	3.94	0.145	0.155
H	1.42	1.51	0.056	0.060
K	6.80	16.51	0.268	0.650
L	11.50	17.25	0.450	0.680



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