

**Single Phase Bridges, 25 Amp,
Military Approved**

JAN SPA25
JAN SPB25
JAN SPC25
JAN SPD25

FEATURES

- Qualified to MIL-S-19500/446
- Current Rating: to 25A
- PIV: from 100 to 600V
- Surge Ratings of 150A
- Only Fused-in-Glass Diodes Used
- Controlled Avalanche Characteristics
- Aluminum Heat Sink Case, Electrically Insulated

DESCRIPTION

This series of military high-current single-phase bridges offer the utmost in reliability as required in military system designs. This series is assembled with diodes which have been subjected to 100% screening tests.

ABSOLUTE MAXIMUM RATINGS

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Peak Inverse Voltage	100 to 600V
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Maximum Average D.C. Output Current

@ $T_c = 55^\circ\text{C}$ 25A

 $T_c = 55^\circ\text{C}$
 $T_c = 100^\circ\text{C}$

Non-Repetitive Sinusoidal Surge (8.3ms)

@ T_c = 55°C 150A

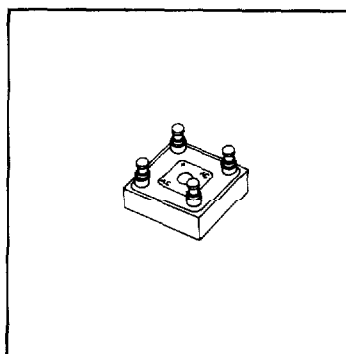
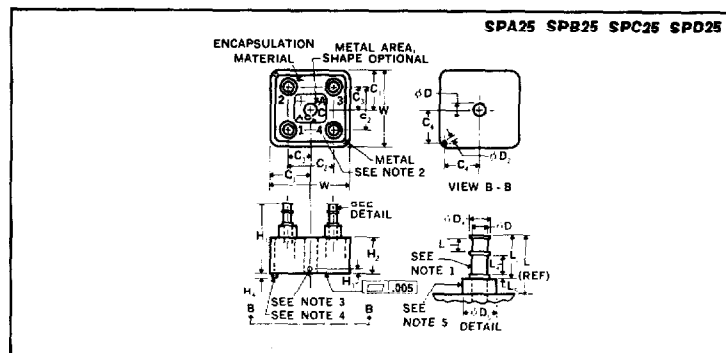
Operating and Storage Temperature Range, T_C -65°C to $+150^{\circ}\text{C}$

Operating and Storage Temperature Range, T_C	-55 °C to +150 °C
Thermal Resistance Junction to Ambient	20 °C/W

Junction to Case 2.5°C/W

Ltr	Dimensions			
	INCHES		MILLIMETERS	
	MIN.	MAX.	MIN.	MAX.
C ₁	.552	.572	14.02	14.53
C ₂	.624	.760	15.85	19.30
C ₃	.312	.380	7.92	9.65
C ₄	.495	.512	12.57	13.00
ⓈD ₁	.189	.195	4.80	4.95
ⓈD ₂	.057	.067	1.45	1.70
ⓈD ₃	.108	.118	2.74	3.00
ⓈD ₄	.141	.151	3.58	3.84
ⓈD ₅	.225	.235	5.72	5.97
H ₁	.669	1.060	17.53	26.92
H ₂	.300	.500	7.62	12.70
H ₃	.040	.060	1.02	1.52
H ₄	.042	.062	1.07	1.57
L ₁	.370	.560	9.40	14.22
L ₂	.307	.365	7.80	9.27
L ₃	.089	.099	2.26	2.49
L ₄	.132	.142	3.35	3.61
L ₅	.026	.036	.66	.91
W	1.104	1.144	28.04	29.06

MECHANICAL SPECIFICATIONS



NOTES:

1. Terminals shall be hot tin dipped or silver plated.
2. Polarity shall be marked on terminal side of device.
3. Point at which Tc is read (must be in metal part of case).
4. Locating pin shall be adjacent to positive terminal.
5. Insulating sleeve shall be alumina (Al_2O_3) or equivalent.

Microsemi Corp.
Watertown
The diode experts

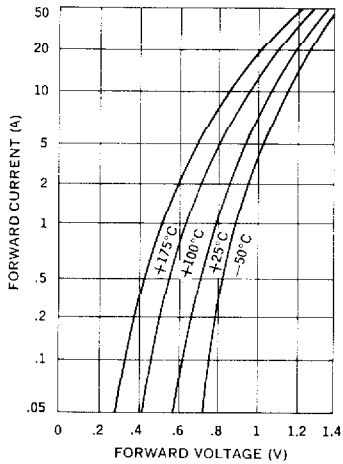
Electrical Specifications (at 25°C unless noted)

Type	PIV Per Leg	Peak Forward Voltage Drop*		Maximum Reverse Recovery Time†	Maximum Leakage Current Per Leg @ PIV	
					T _C = 25°C	T _C = 100°C
	Volts	Minimum	Maximum	μS	μA	μA
JAN SPA25	100	0.9V @ 39A(pk)	1.4V	2	2	150
JAN SPB25	200					
JAN SPC25	400					
JAN SPD25	600					

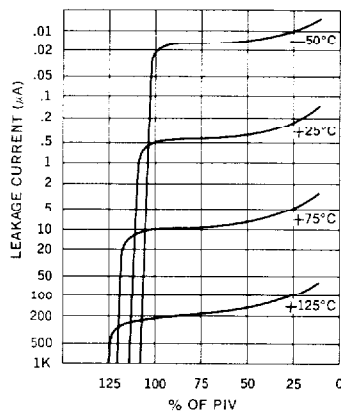
*Peak forward voltage drop is measured at a pulse width of 8.3ms.

†Measured in a reverse recovery circuit switching from 0.5A forward to 1.0A reverse current recovery to 0.5A.

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Typical Forward Voltage Per Leg
vs. Forward Current

Typical Leakage Current vs. PIV



Current Derating Curve

