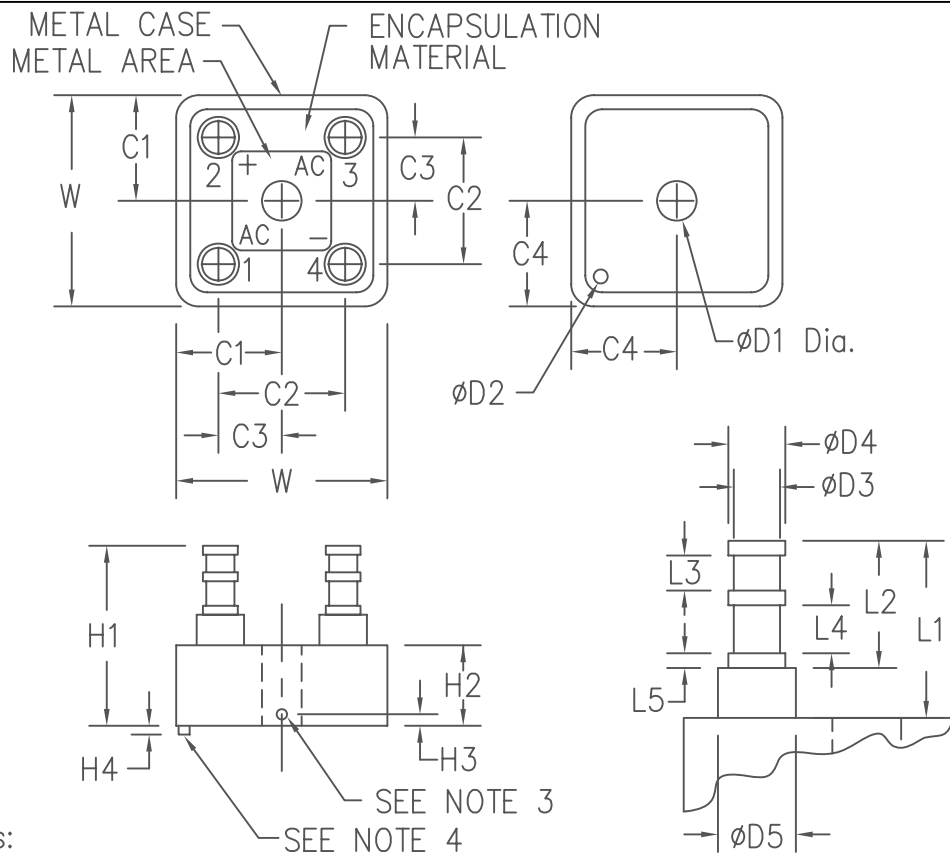


# 25 Amp Single Phase Bridge Rectifiers SPA25 to SPD25



Notes:

1. Terminals are Sn/Pb dipped.
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.

Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
C1	.552	.572	14.02	14.53	
C2	.624	.760	15.85	19.30	
C3	.312	.380	7.92	9.65	
C4	.495	.512	12.57	13.00	
ØD1	.189	.195	4.80	4.95	
ØD2	.057	.067	1.45	1.70	
ØD3	.108	.118	2.74	3.00	
ØD4	.141	.151	3.58	3.84	
ØD5	.225	.235	5.72	5.97	
H1	.669	1.060	17.53	26.92	
H2	.300	.500	7.62	12.70	
H3	.040	.060	1.02	1.52	
H4	.042	.062	1.07	1.57	
L1	.370	.560	9.40	14.22	
L2	.307	.365	7.80	9.27	
L3	.089	.099	2.26	2.49	
L4	.132	.142	3.35	3.61	
L5	.026	.036	.66	.91	
W	1.104	1.144	28.04	29.06	

Microsemi Catalog Number	Industry Part Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
SPA25		100V	110V
SPB25		200V	220V
SPC25		400V	440V
SPD25		600V	660V

- High Rel Screening Available
- Fused-in-glass diodes used
- Controlled Avalanche Characteristics
- High Surge Rating
- Electrically isolated Aluminum case
- MIL-PRF-19500 Similarity

## Electrical Characteristics

Average D.C. output current	I <sub>OAV</sub> 25 Amps	T <sub>C</sub> = 55°C
Average D.C. output current	I <sub>OAV</sub> 15 Amps	T <sub>C</sub> = 100°C
Maximum surge current	I <sub>FSM</sub> 150 Amps	8.3ms, half sine, T <sub>J</sub> = 55°C
Max peak forward voltage per leg	V <sub>FM</sub> 1.40 Volts	I <sub>FM</sub> = 39A; T <sub>J</sub> = 25°C*
Max peak reverse current per leg	I <sub>RM</sub> 2 µA	V <sub>RRM</sub> , T <sub>J</sub> = 25°C
Max peak reverse current per leg	I <sub>RM</sub> 150 µA	V <sub>RRM</sub> , T <sub>J</sub> = 100°C*
Max. recovery time per leg	t <sub>rr</sub> 2.5 µS	0.5A, 1.0A, 0.25A
Isolation voltage	V <sub>ISO</sub> 2800 Volts	10 µA DC max for 10sec. 25°C

\*Pulse test: Pulse width 300 µsec, Duty cycle 2%

## Thermal and Mechanical Characteristics

Storage temperature range	T <sub>STG</sub>	-65°C to 150°C
Operating temperature range	T <sub>J</sub>	-65°C to 150°C
Maximum thermal resistance	R <sub>ØJC</sub>	2.5°C/W junction to case
Maximum thermal resistance per package	R <sub>ØJA</sub>	20°C/W junction to ambient
Weight		1.1 ounces (31.5 grams) typical

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# SPA25 to SPD25

Figure 1  
Typical Forward Characteristics – Per Leg

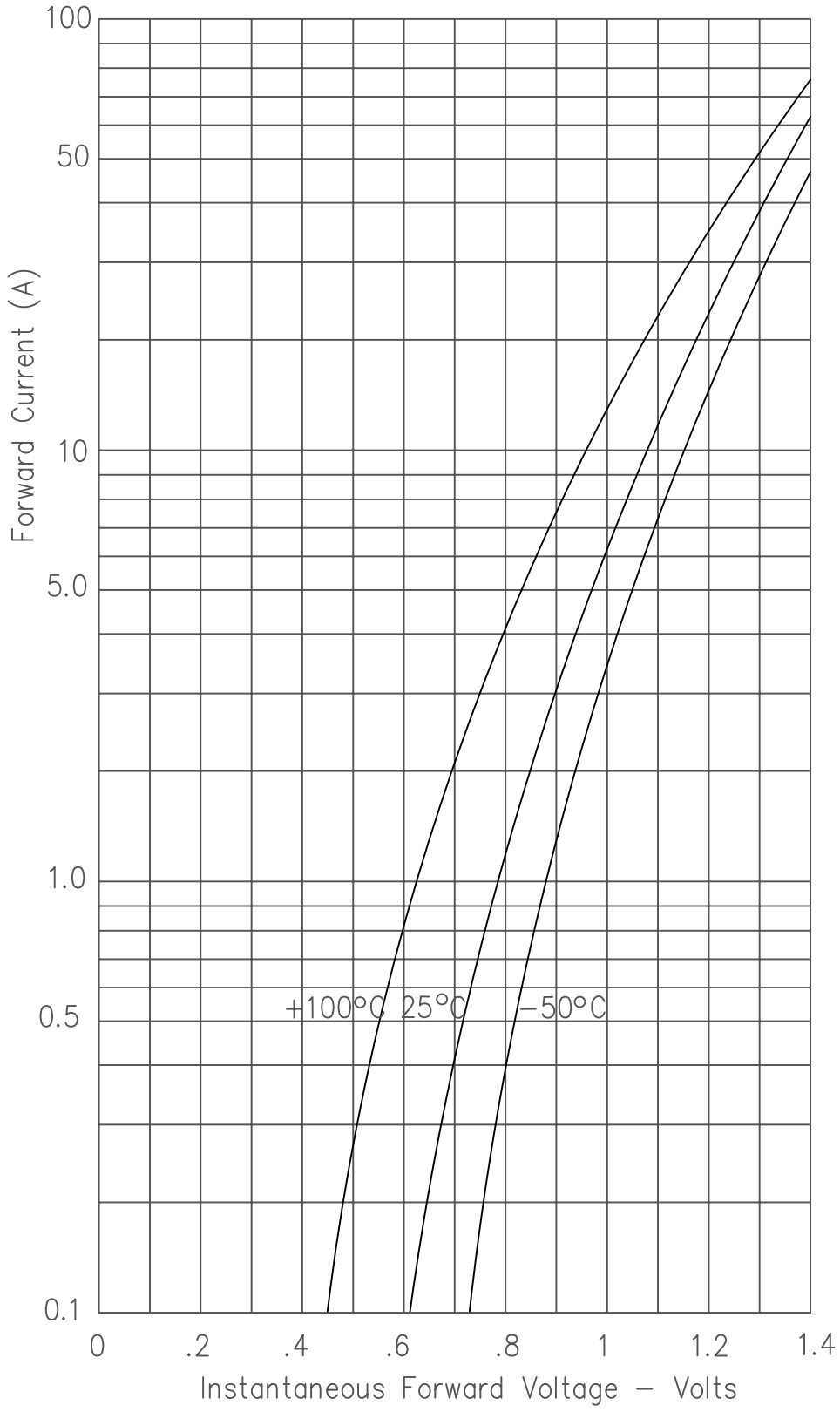


Figure 3  
Current Derating

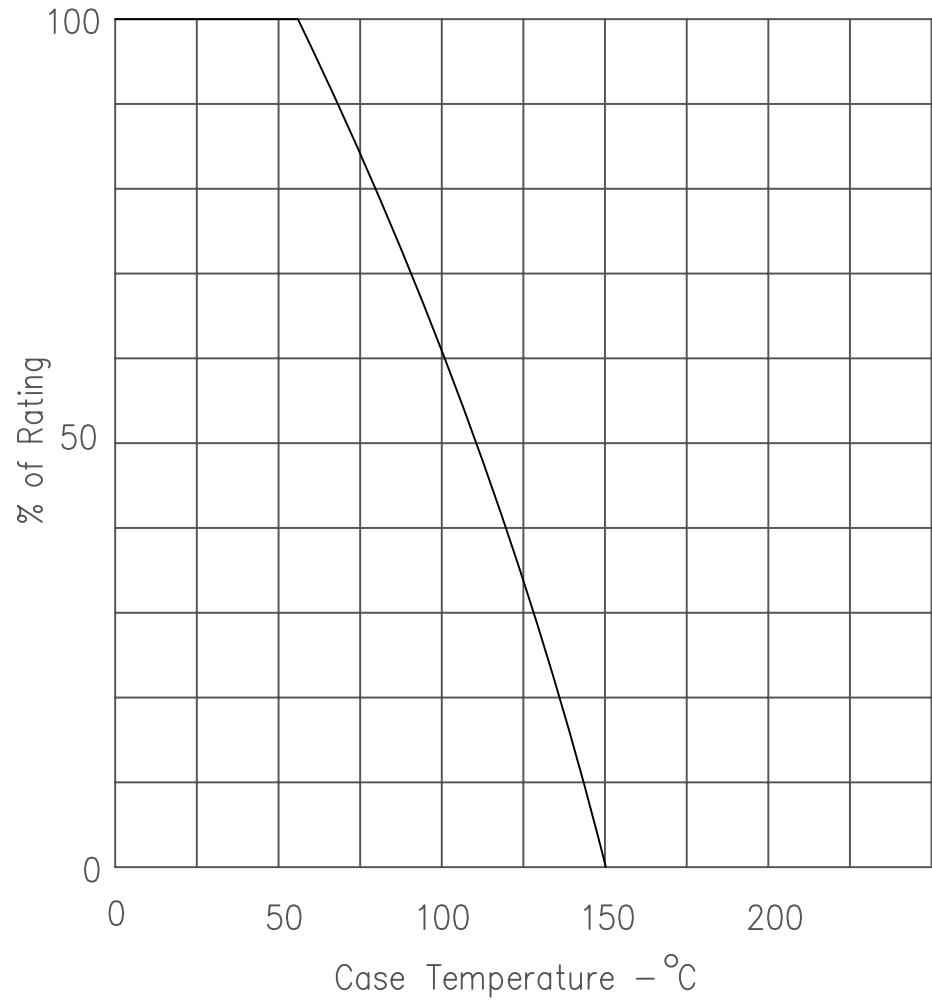


Figure 2  
Typical Reverse Leakage Current – Per Leg

