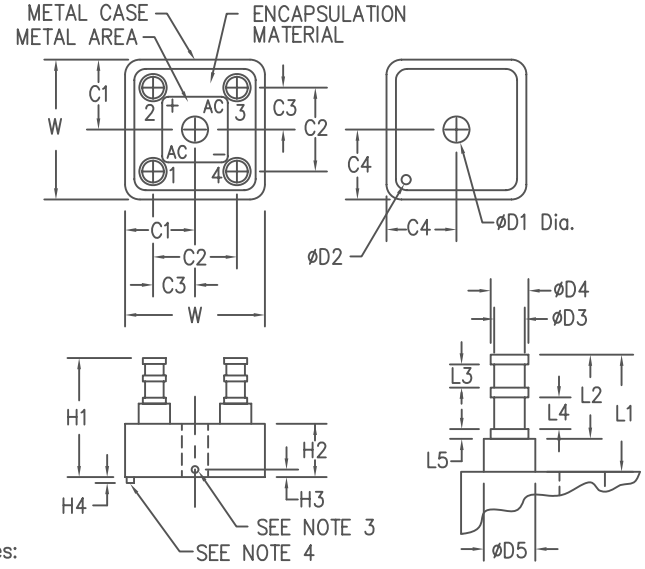
25 Amp Single Phase Bridge Rectifiers

SPA25 to SPD25



Dim.	Inches		Millimeter		
	Minimum	Maximum	Minimum	Maximum	Notes
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	

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.

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_{OAV} 25 Amps	T_C = 55°C
Average D.C. output current	I_{OAV} 15 Amps	T_C = 100°C
Maximum surge current	I_{FSM} 150 Amps	8.3ms, half sine, T_J = 55°C
Max peak forward voltage per leg	V_{FM} 1.40 Volts	I_{FM} = 39A: T_J = 25°C*
Max peak reverse current per leg	I_{RM} 2 µA	V_{RRM}, T_J = 25°C
Max peak reverse current per leg	I_{RM} 150 µA	V_{RRM}, T_J = 100°C*
Max. recovery time per leg	t_{rr} 2.5 µS	0.5A, 1.0A, 0.25A
Isolation voltage	V_{ISO} 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_{STG}	–65°C to 150°C
Operating temperature range	T_J	–65°C to 150°C
Maximum thermal resistance	$R_{\theta JC}$	2.5°C/W junction to case
Maximum thermal resistance per package	$R_{\theta JA}$	20°C/W junction to ambient
Weight		1.1 ounces (31.5 grams) typical

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Figure 1
Typical Forward Cheracteristics – Per Leg

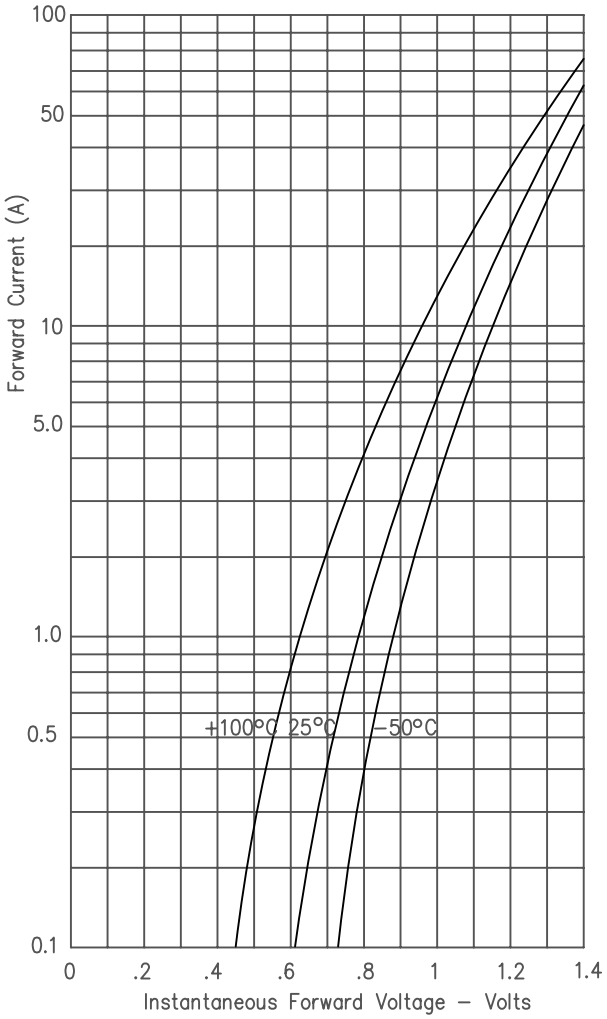

Figure 2
Typical Reverse Leakage Current – Per Leg

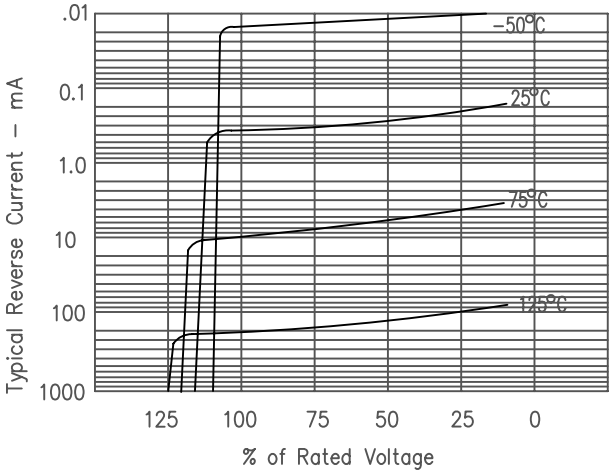

Figure 3
Current Derating