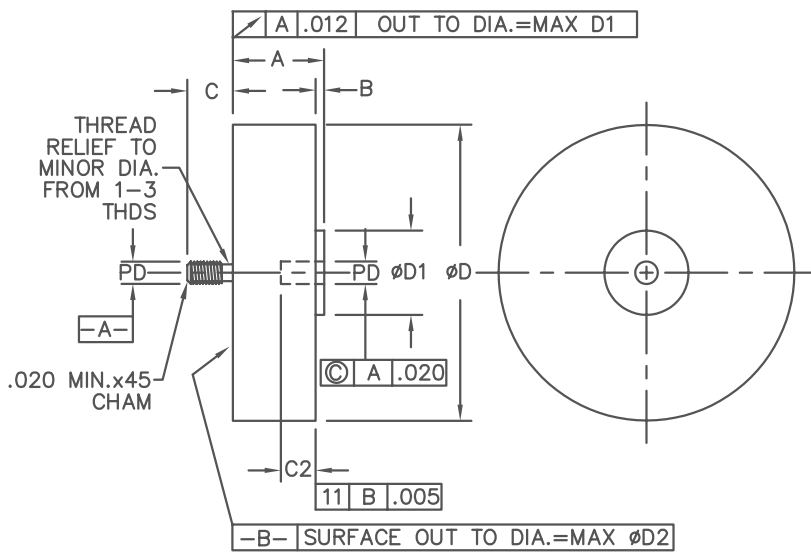


# High Voltage Stacks

## 1N5597, 1N5600 & 1N5603



### 1N5597 & 1N5600

Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	.73	.83	18.54	21.08	8
B	---	.080	---	2.03	
C	.240	.264	6.10	6.71	2,6
C1	.265	.400	6.73	10.16	4
ØD	1.85	1.95	46.99	49.53	
ØD1	.57	.67	14.48	17.02	

### 1N5603

Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	.970	1.020	24.64	25.91	8
B	.050	.080	1.27	2.03	
C	.307	.780	.317	8.05	3
C1	.318	.400	8.08	10.16	5,7
ØD	3.450	3.650	87.63	92.71	
ØD1	.95	1.250	24.13	31.75	

**Notes:**

1. All marking shall be on cathode side of module.
2. Threaded stud 1/4-28UNF-2A.
3. Threaded stud 3/8-24UNF-2A.
4. Threaded insert 1/4-28UNF-2B.
5. Threaded insert 3/8-24UNF-2B.
6. Cathode connected to terminal 2.
7. Cathode connected to terminal 1.
8. Module contour within dimension A is not specified.

Microsemi Catalog Number	Working Peak Reverse Voltage	DC Output Current
1N5597	10kV	1A
1N5600	5kV	2A
1N5603	5kV	5A

- High rel screening available
- VRRM to 10kV
- Only fused-in-glass diodes used
- 150°C junction temperature
- Surge ratings to 200A
- Controlled avalanche characteristics
- MIL-PRF-19500 Similarity

### Electrical Characteristics

		<u>1N5597</u>	<u>1N5600</u>	<u>1N5603</u>
Maximum DC output current—TC = 75°C	I <sub>O</sub>	1A	2A	5A
Maximum surge current—TC = 75°C	I <sub>FSM</sub>	30A	80A	200A
Max peak reverse voltage	I <sub>RM</sub>	10kV	5kV	5kV
Min peak forward voltage @ 25°C	V <sub>FM</sub>	13V @ 1A*	6V @ 2A*	6V @ 5A*
Max peak forward voltage @ 25°C	V <sub>FM</sub>	19V @ 1A*	10V @ 2A*	10V @ 5A*
Max peak reverse current @ 25°C, at V <sub>rrm</sub>	I <sub>RM</sub>	1 uA	5 uA	5 uA
Max peak reverse current @ 100°C, at V <sub>rrm</sub>	I <sub>RM</sub>	75 uA	100 uA	100 uA
Max capacitance @ 100V	C <sub>J</sub>	30 pF	30 pF	40 pF

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

### Thermal and Mechanical Characteristics

Storage temp range	T <sub>STG</sub>	-65°C to 150°C		
Operating junction temp range	T <sub>J</sub>	-65°C to 150°C		
Weight - typical		60 grams	60 grams	200 grams

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Figure 1  
Typical Forward Voltage vs. Forward Current

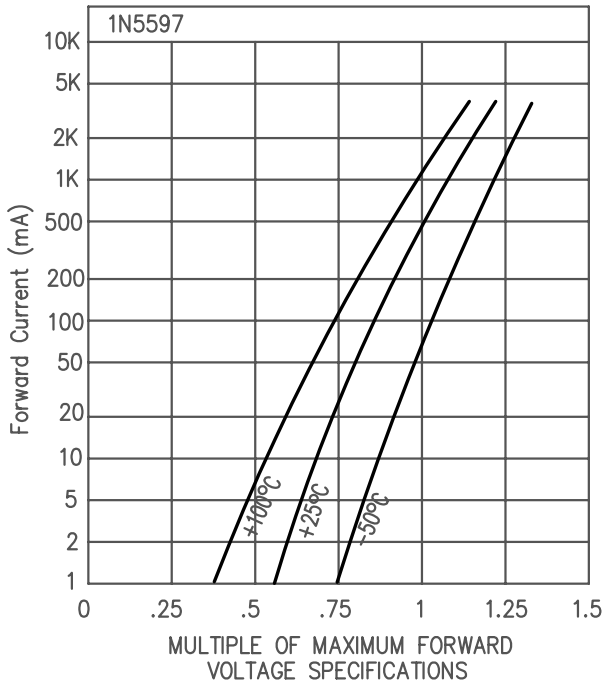


Figure 3  
Typical Forward Voltage vs. Forward Current

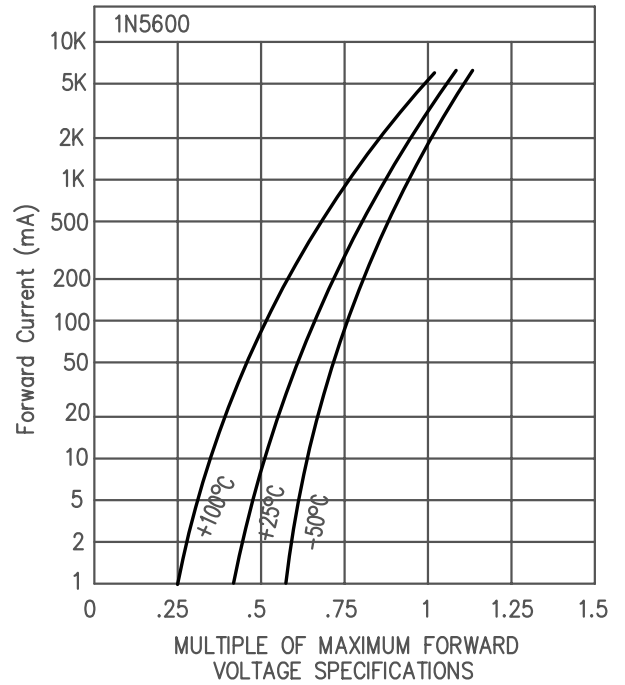


Figure 2  
Typical Forward Voltage vs. Forward Current

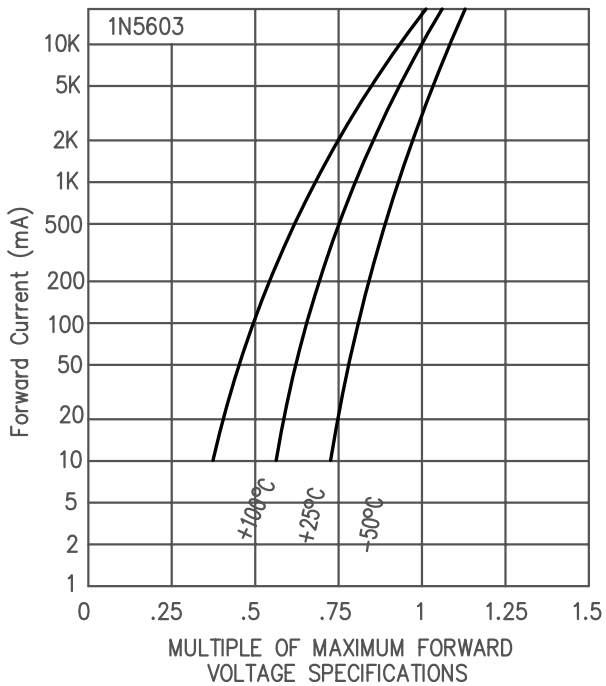
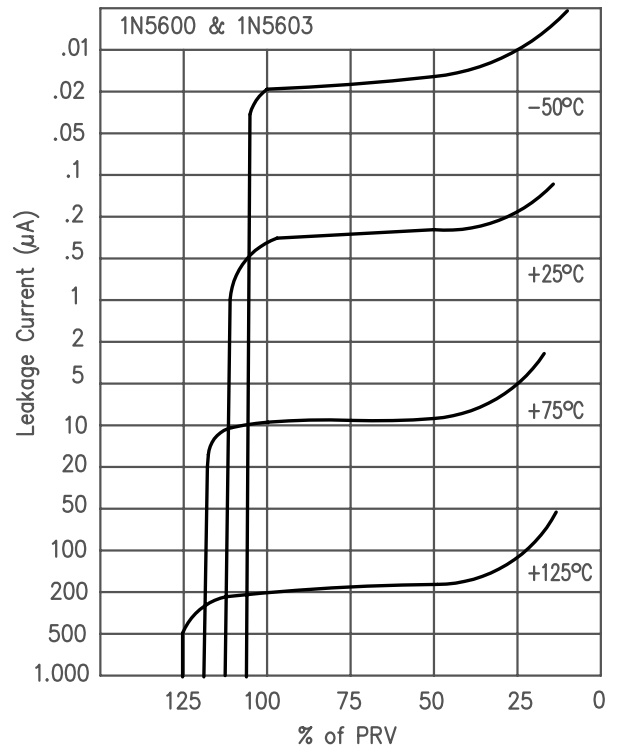
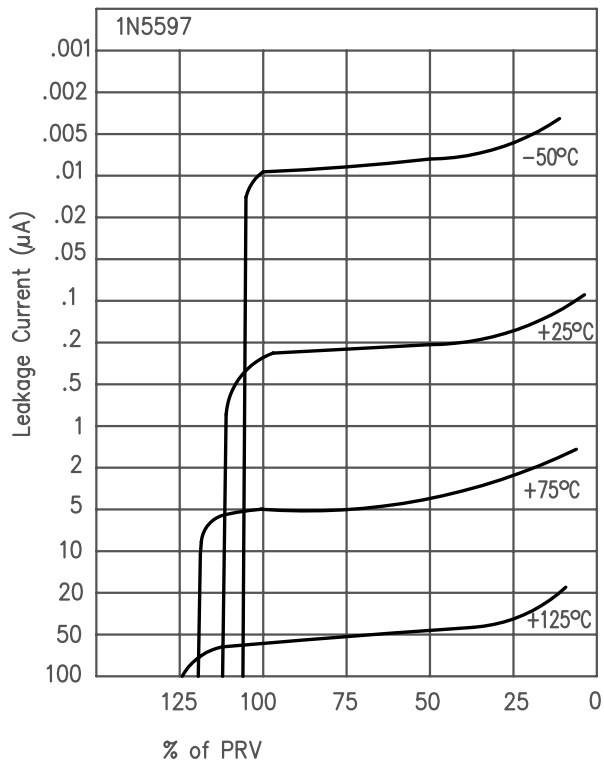


Figure 4  
Typical Leakage Current vs. PRV



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Typical Leakage Current vs. PRV



Current Derating Curve

