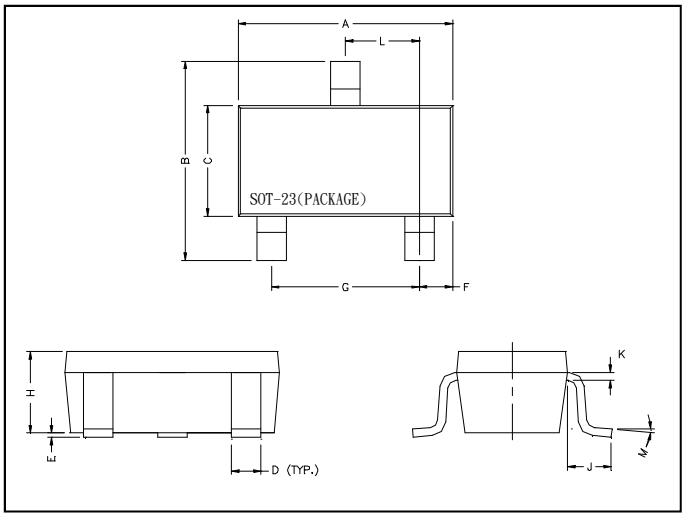
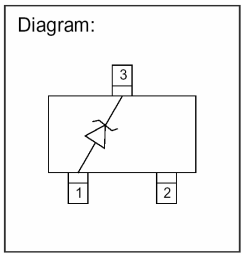
GMBZ5221B~ GMBZ5270B

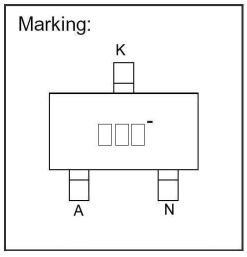
Description

ZENER DIODES

Package Dimensions







REF	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.70	3.10	G	1.90	REF.
B	2.40	2.80	H	1.00	1.30
C	1.40	1.60	K	0.10	0.20
D	0.35	0.50	J	0.40	-
E	0	0.10	L	0.85	1.15
F	0.45	0.55	M	0°	10°

Thermal Characteristics

Characteristics	Symbol	Max	Unit
Total Device Dissipation FR-5 Board Ta=25℃, Derate above 25℃	PD	225 1.8	mW mW/℃
Total Device Dissipation Alumina Substrate**TA=25℃, Derate above 25℃	PD	300 2.4	mW mW/℃
Thermal Resistance Junction to Ambient	R θ JA	417	℃/W
Junction and Storage Temperature	Tj,Tstg	-55 to +150	℃

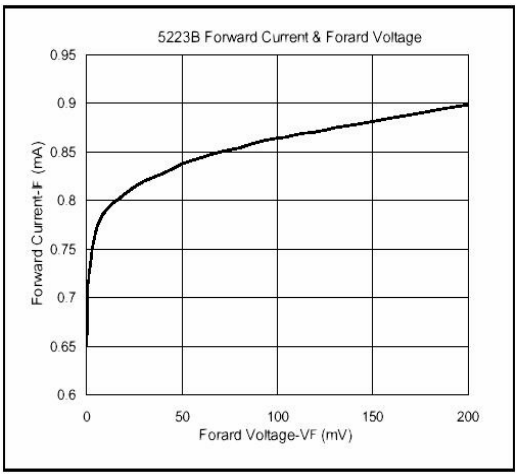
*FR-5 1.0×0.75×0.062 in. **Alumina-0.4×0.3×0.024 in. 99.5% alumina.

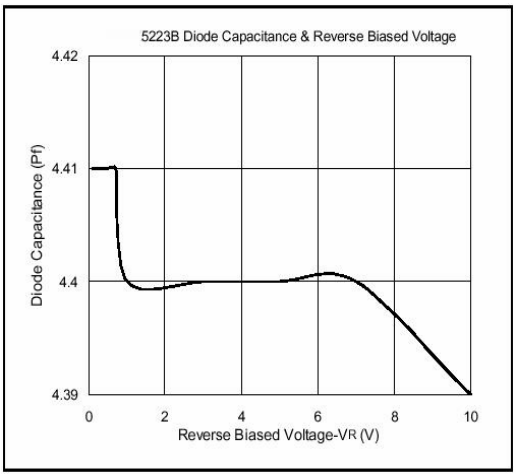
Thermal Characteristics (VF=0.9V Max @IF=10mA for all types.)

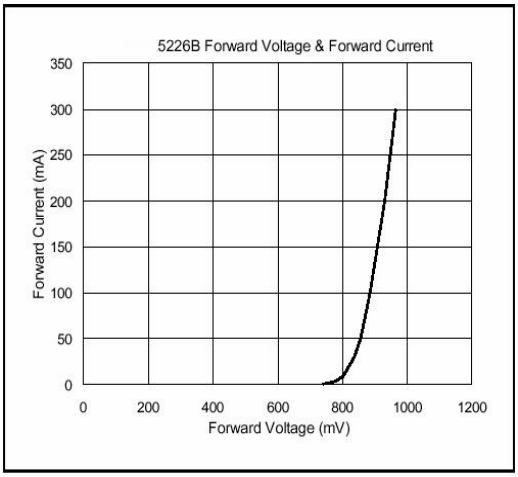
Device	Type Code	Test Current IZT(mA)	Zener Voltage Vz(V)			ZZK IZ=0.25mA Ω Max	ZZT IZ=IZT Ω Max	Max. Reverse Current	
			Min	Nominal	Max			IR(uA)	@VR(V)
GMBZ5221B	18A	20	2.280	2.4	2.520	1200	30	100	1.0
GMBZ5222B	18B	20	2.375	2.5	2.625	1250	30	100	1.0
GMBZ5223B	18C	20	2.565	2.7	2.835	1300	30	75	1.0
GMBZ5224B	18D	20	2.66	2.8	2.940	1400	30	75	1.0
GMBZ5225B	18E	20	2.850	3.0	3.150	1600	29	50	1.0
GMBZ5226B	8A	20	3.135	3.3	3.465	1600	28	25	1.0
GMBZ5227B	8B	20	3.420	3.6	3.780	1700	24	15	1.0
GMBZ5228B	8C	20	3.705	3.9	4.095	1900	23	10	1.0
GMBZ5229B	8D	20	4.085	4.3	4.515	2000	22	5.0	1.0
GMBZ5230B	8E	20	4.465	4.7	4.935	1900	19	5.0	2.0
GMBZ5231B	8F	20	4.845	5.1	5.355	1600	17	5.0	2.0
GMBZ5232B	8G	20	5.320	5.6	5.880	1600	17	5.0	3.0
GMBZ5233B	8H	20	5.700	6.0	6.300	1600	7.0	5.0	3.5
GMBZ5234B	8J	20	5.890	6.2	6.510	1000	7.0	5.0	4.0
GMBZ5235B	8K	20	6.460	6.8	7.140	750	5.0	3.0	5.0
GMBZ5236B	8L	20	7.125	7.5	7.875	500	6.0	3.0	6.0
GMBZ5237B	8M	20	7.790	8.2	8.610	500	8.0	3.0	6.5

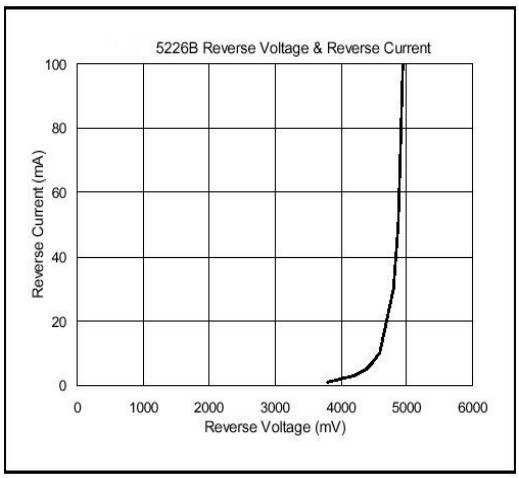
Device	Type Code	Test Current	Zener Voltage Vz(V)			ZZK IZ=0.25mA	ZZT IZ=IZT	Max. Reverse Current	
		IZT(mA)	Min	Nominal	Max	Ω Max	Ω Max	IR(uA)	@VR(V)
GMBZ5238B	8N	20	8.265	8.7	9.135	600	8.0	3.0	6.5
GMBZ5239B	8P	20	8.645	9.1	9.555	600	10	3.0	7.0
GMBZ5240B	8Q	20	9.500	10	10.500	600	17	3.0	8.0
GMBZ5241B	8R	20	10.450	11	11.550	600	22	2.0	8.4
GMBZ5242B	8S	20	11.400	12	12.600	600	30	1.0	9.1
GMBZ5243B	8T	9.5	12.350	13	13.650	600	13	0.5	9.9
GMBZ5244B	8U	9.0	13.300	14	14.700	600	15	0.1	10
GMBZ5245B	8V	8.5	14.250	15	15.750	600	16	0.1	11
GMBZ5246B	8W	7.8	15.200	16	16.800	600	17	0.1	12
GMBZ5247B	8X	7.4	16.150	17	17.850	600	19	0.1	13
GMBZ5248B	8Y	7.0	17.100	18	18.900	600	21	0.1	14
GMBZ5249B	8Z	6.6	18.050	19	19.950	600	23	0.1	14
GMBZ5250B	81A	6.2	19.000	20	21.000	600	25	0.1	15
GMBZ5251B	81B	5.6	20.900	22	23.100	600	29	0.1	17
GMBZ5252B	81C	5.2	22.800	24	25.200	600	33	0.1	18
GMBZ5253B	81D	5.0	23.750	25	26.250	600	35	0.1	19
GMBZ5254B	81E	4.6	25.650	27	28.350	600	41	0.1	21
GMBZ5255B	81F	4.5	26.600	28	29.400	600	44	0.1	21
GMBZ5256B	81G	4.2	28.500	30	31.500	600	49	0.1	23
GMBZ5257B	81H	3.8	31.350	33	34.650	700	58	0.1	25
GMBZ5258B	81J	3.4	34.200	36	37.800	700	70	0.1	27
GMBZ5259B	81K	3.2	37.050	39	40.950	800	80	0.1	30
GMBZ5260B	81L	3.0	40.850	43	45.150	900	93	0.1	33
GMBZ5261B	81M	2.7	44.650	47	49.350	1000	105	0.1	36
GMBZ5262B	81N	2.5	48.450	51	53.550	1100	125	0.1	39
GMBZ5263B	81P	2.2	53.200	56	58.800	1300	150	0.1	43
GMBZ5264B	81Q	2.1	57.000	60	63.000	1400	170	0.1	46
GMBZ5265B	81R	2.0	58.900	62	65.100	1400	185	0.1	47
GMBZ5266B	81S	1.8	64.600	68	71.400	1600	230	0.1	52
GMBZ5267B	81T	1.7	71.250	75	78.750	1700	270	0.1	56
GMBZ5268B	81U	1.5	77.900	82	86.100	2000	330	0.1	62
GMBZ5269B	81V	1.4	82.650	87	91.35	2200	370	0.1	68
GMBZ5270B	81W	1.4	86.450	91	95.550	2300	400	0.1	69

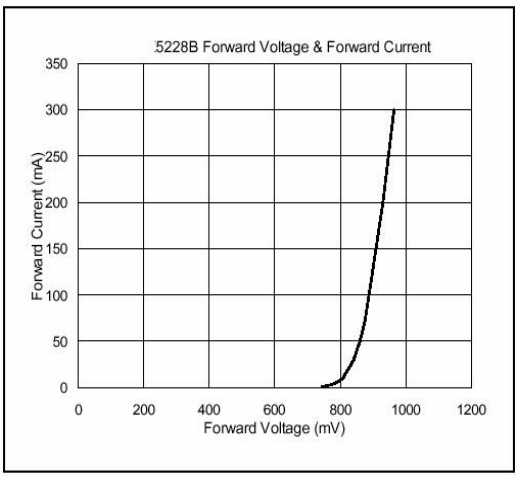
Characteristics Curve

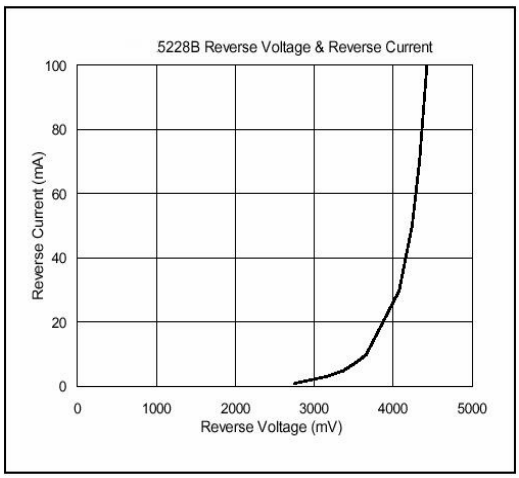


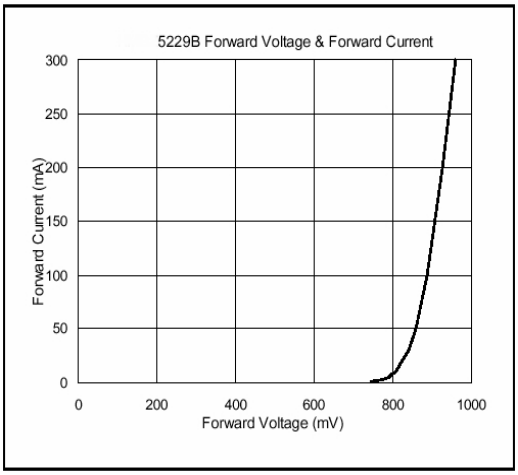


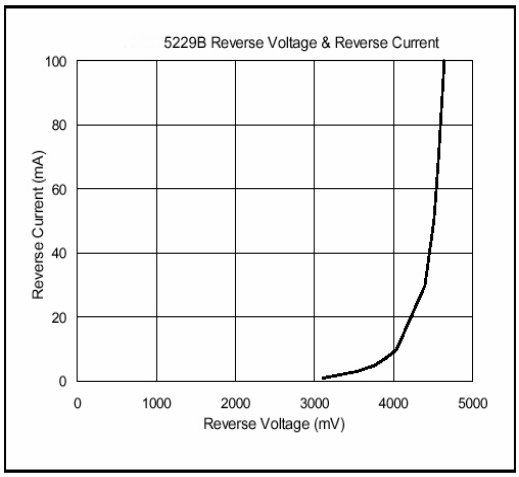


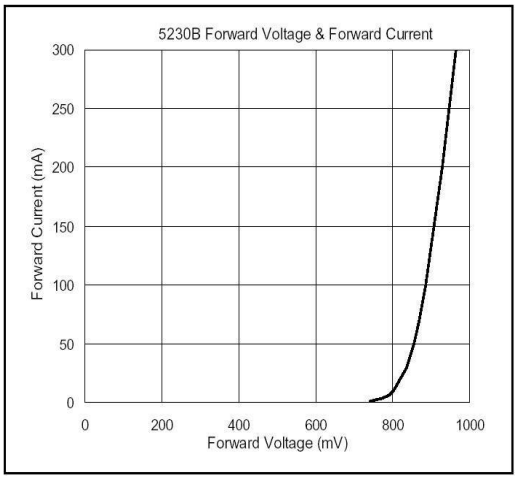


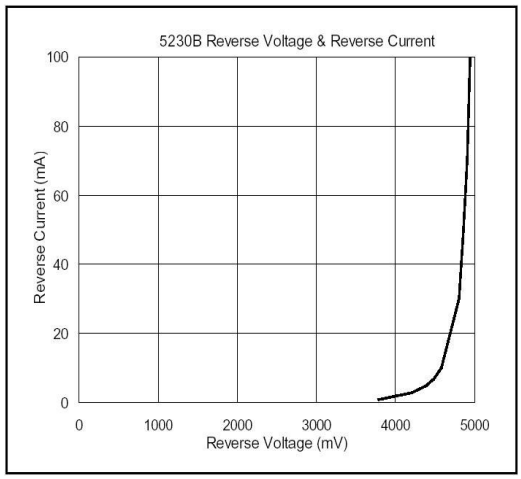


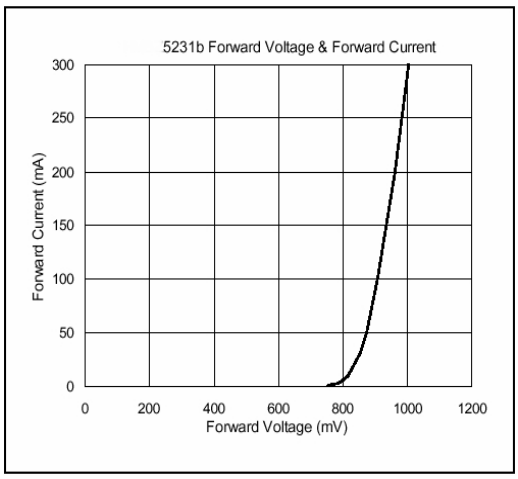


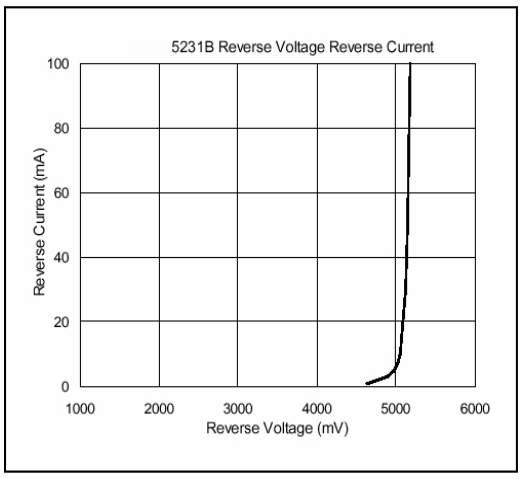

5229B Forward Voltage & Forward Current
Forward Current (mA)
300
250
200
150
100
50
0
0
200
400
600
800
1000
Forward Voltage (mV)

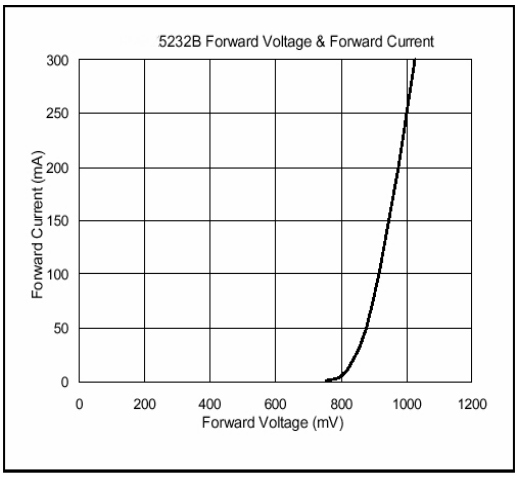

5229B Reverse Voltage & Reverse Current
Reverse Current (mA)
100
80
60
40
20
0
0
1000
2000
3000
4000
5000
Reverse Voltage (mV)

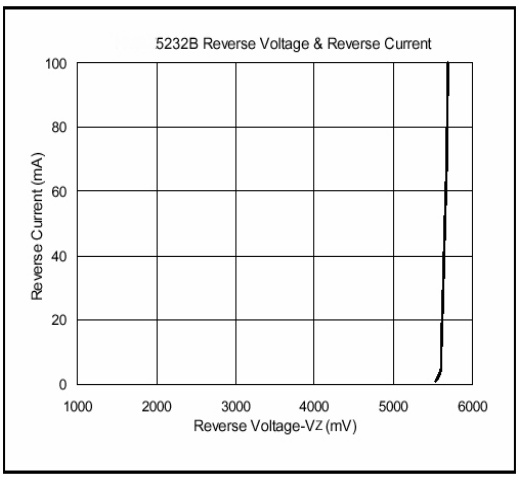

5230B Forward Voltage & Forward Current
Forward Current (mA)
300
250
200
150
100
50
0
0
200
400
600
800
1000
Forward Voltage (mV)

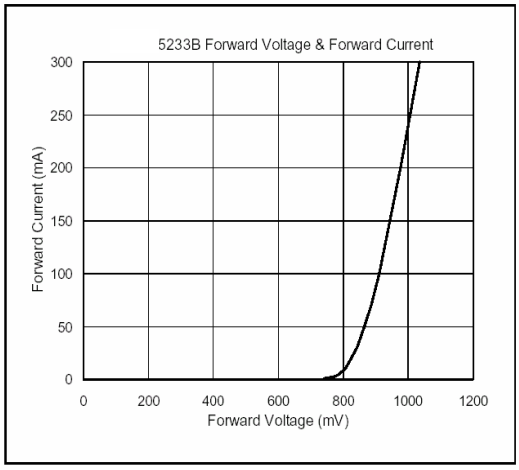

5230B Reverse Voltage & Reverse Current
Reverse Current (mA)
100
80
60
40
20
0
0
1000
2000
3000
4000
5000
Reverse Voltage (mV)

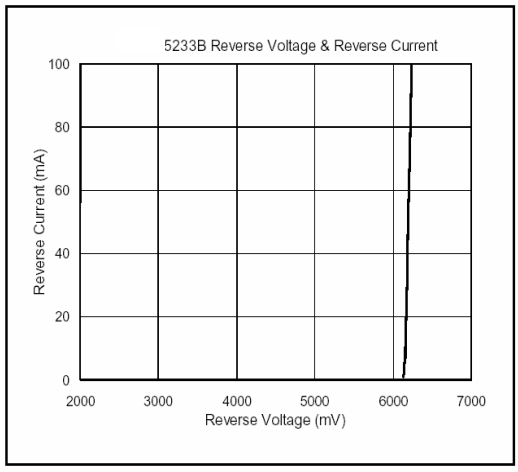

5231b Forward Voltage & Forward Current
Forward Current (mA)
300
250
200
150
100
50
0
0
200
400
600
800
1000
1200
Forward Voltage (mV)

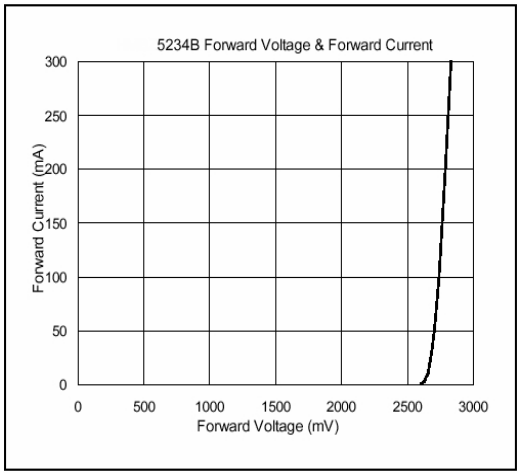

5231B Reverse Voltage Reverse Current
Reverse Current (mA)
100
80
60
40
20
0
1000
2000
3000
4000
5000
6000
Reverse Voltage (mV)

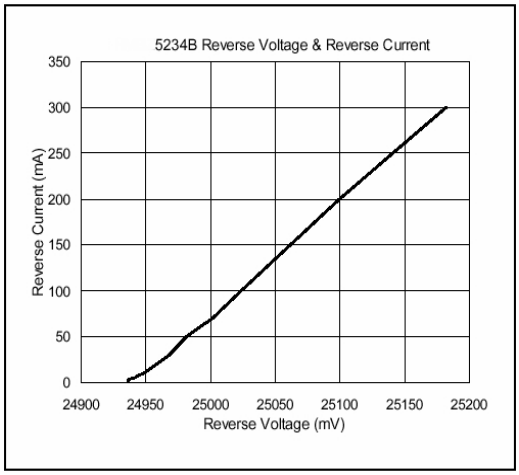

5232B Forward Voltage & Forward Current
Forward Current (mA)
300
250
200
150
100
50
0
0
200
400
600
800
1000
1200
Forward Voltage (mV)

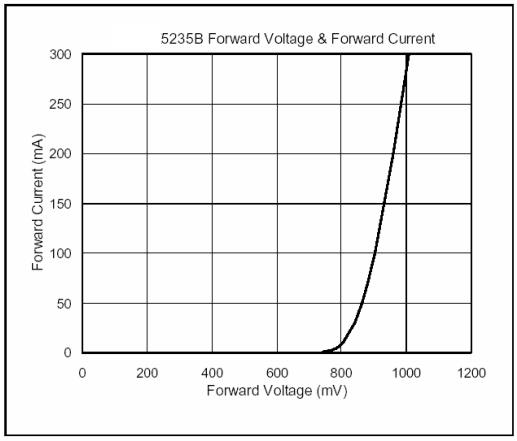

5232B Reverse Voltage & Reverse Current
Reverse Current (mA)
100
80
60
40
20
0
1000
2000
3000
4000
5000
6000
Reverse Voltage-VZ (mV)

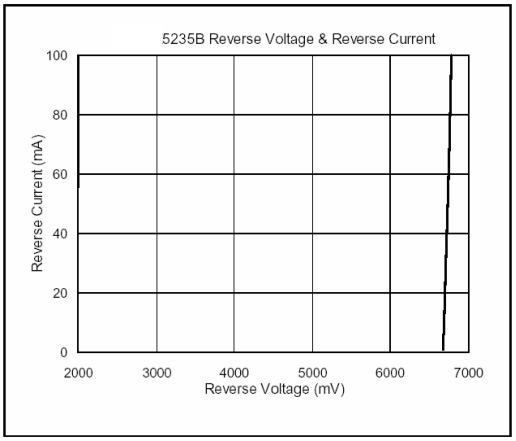

5233B Forward Voltage & Forward Current
Forward Current (mA)
300
250
200
150
100
50
0
0
200
400
600
800
1000
1200
Forward Voltage (mV)

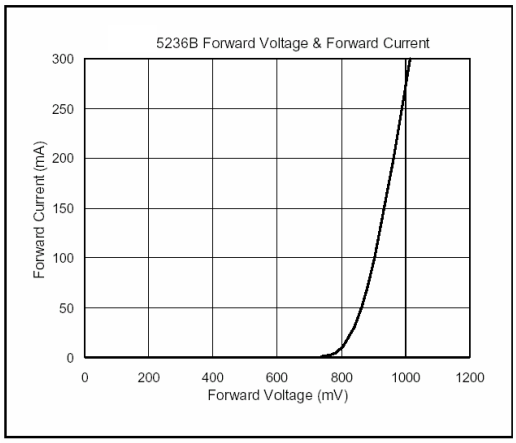

5233B Reverse Voltage & Reverse Current
Reverse Current (mA)
100
80
60
40
20
0
2000
3000
4000
5000
6000
7000
Reverse Voltage (mV)

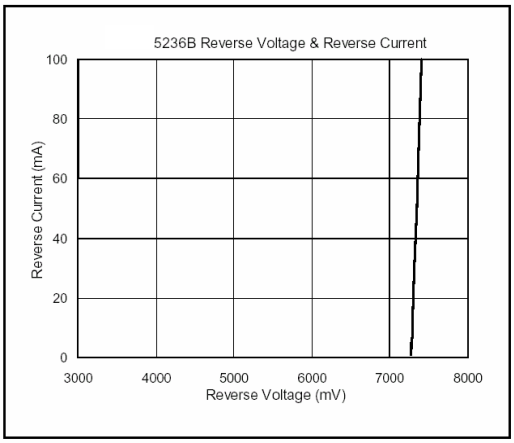

5234B Forward Voltage & Forward Current
Forward Current (mA)
300
250
200
150
100
50
0
0
500
1000
1500
2000
2500
3000
Forward Voltage (mV)

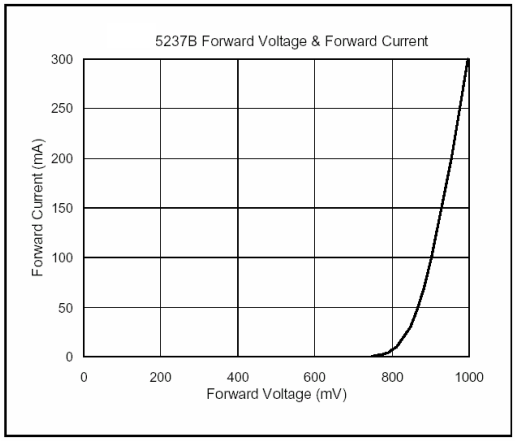

5234B Reverse Voltage & Reverse Current
Reverse Current (mA)
350
300
250
200
150
100
50
0
24900
24950
25000
25050
25100
25150
25200
Reverse Voltage (mV)

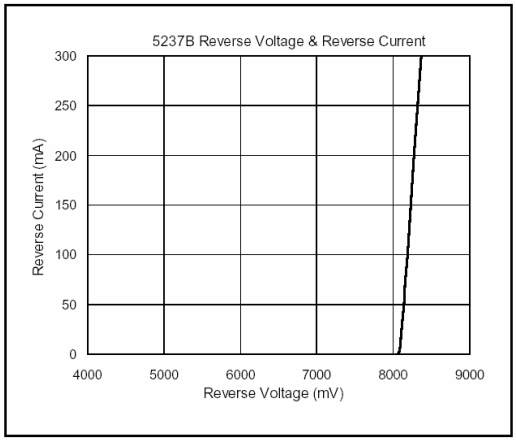

5235B Forward Voltage & Forward Current
Forward Current (mA)
300
250
200
150
100
50
0
0
200
400
600
800
1000
1200
Forward Voltage (mV)

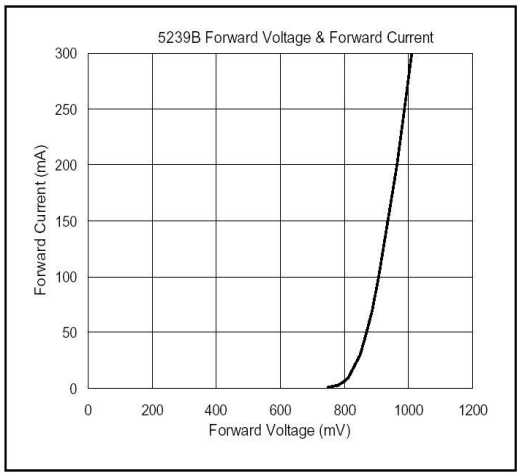

5235B Reverse Voltage & Reverse Current
Reverse Current (mA)
100
80
60
40
20
0
2000
3000
4000
5000
6000
7000
Reverse Voltage (mV)

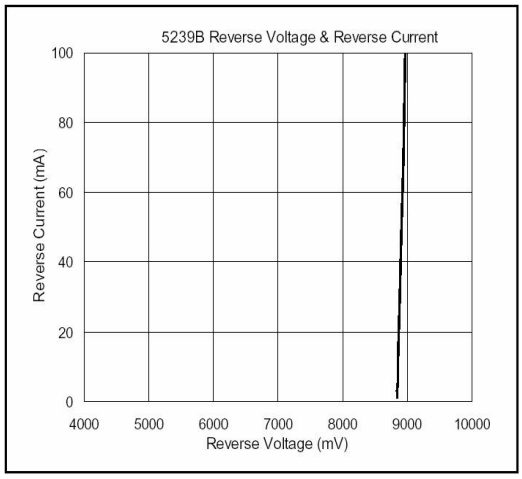

5236B Forward Voltage & Forward Current
Forward Current (mA)
300
250
200
150
100
50
0
0
200
400
600
800
1000
1200
Forward Voltage (mV)

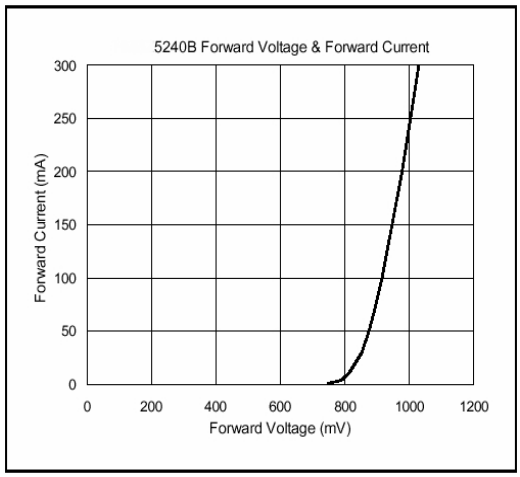

5236B Reverse Voltage & Reverse Current
Reverse Current (mA)
100
80
60
40
20
0
3000
4000
5000
6000
7000
8000
Reverse Voltage (mV)

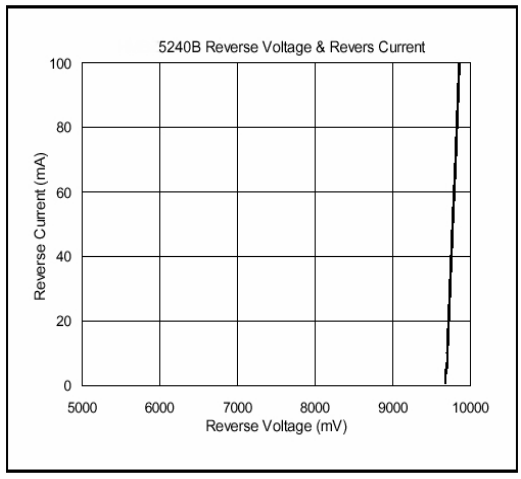

5237B Forward Voltage & Forward Current
Forward Current (mA)
300
250
200
150
100
50
0
0
200
400
600
800
1000
Forward Voltage (mV)

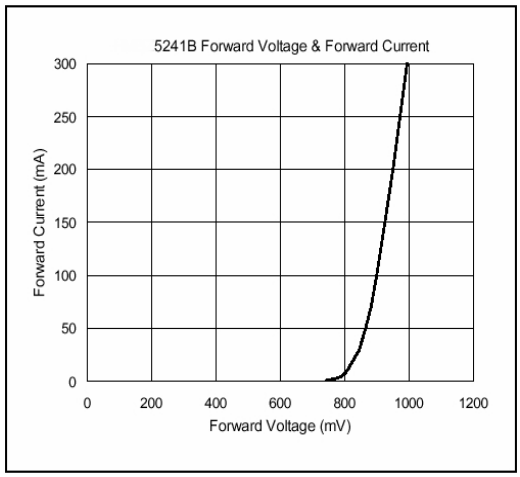

5237B Reverse Voltage & Reverse Current
Reverse Current (mA)
300
250
200
150
100
50
0
4000
5000
6000
7000
8000
9000
Reverse Voltage (mV)

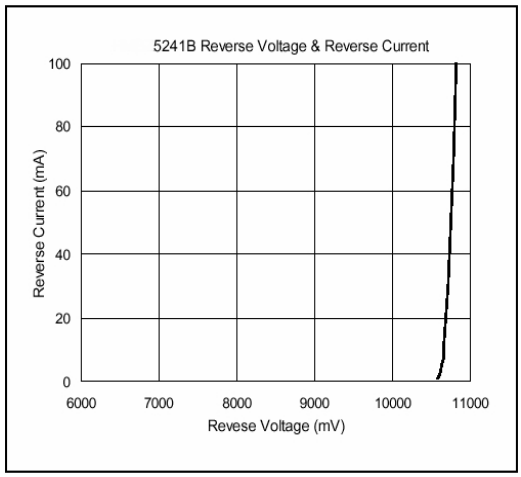

5239B Forward Voltage & Forward Current
Forward Current (mA)
300
250
200
150
100
50
0
0
200
400
600
800
1000
1200
Forward Voltage (mV)

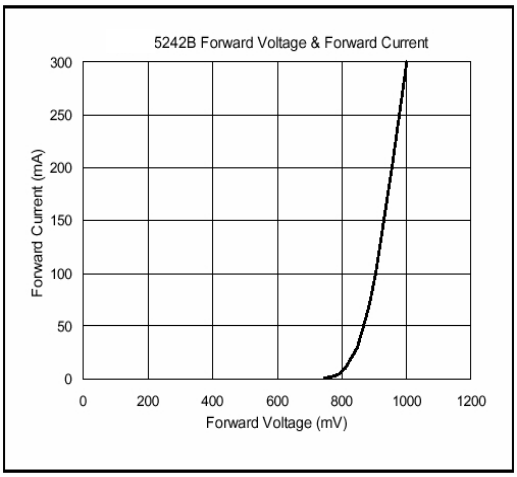

5239B Reverse Voltage & Reverse Current
Reverse Current (mA)
100
80
60
40
20
0
4000
5000
6000
7000
8000
9000
10000
Reverse Voltage (mV)

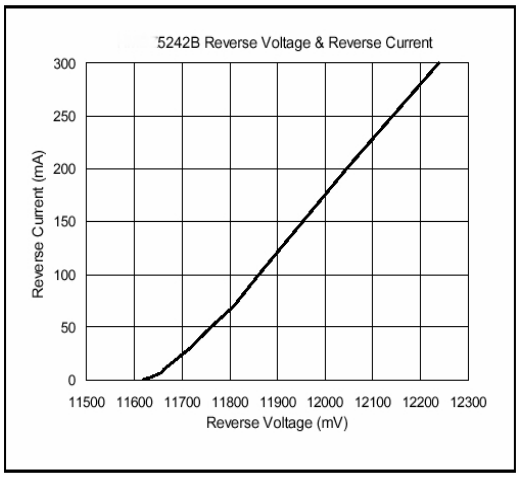

5240B Forward Voltage & Forward Current
Forward Current (mA)
300
250
200
150
100
50
0
0
200
400
600
800
1000
1200
Forward Voltage (mV)

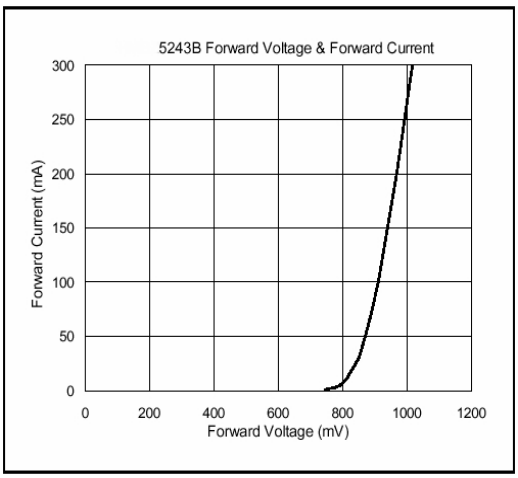

5240B Reverse Voltage & Revers Current
Reverse Current (mA)
100
80
60
40
20
0
5000
6000
7000
8000
9000
10000
Reverse Voltage (mV)

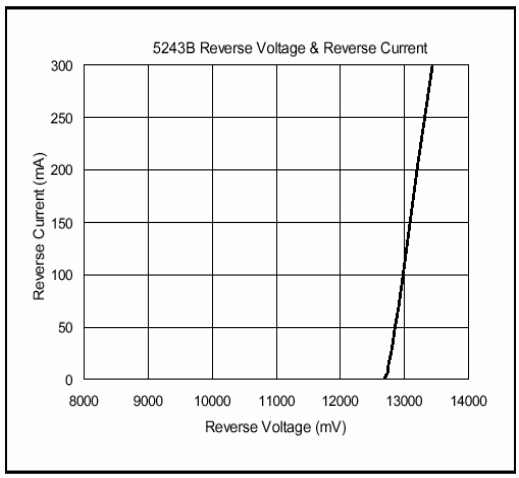

5241B Forward Voltage & Forward Current
Forward Current (mA)
300
250
200
150
100
50
0
0
200
400
600
800
1000
1200
Forward Voltage (mV)

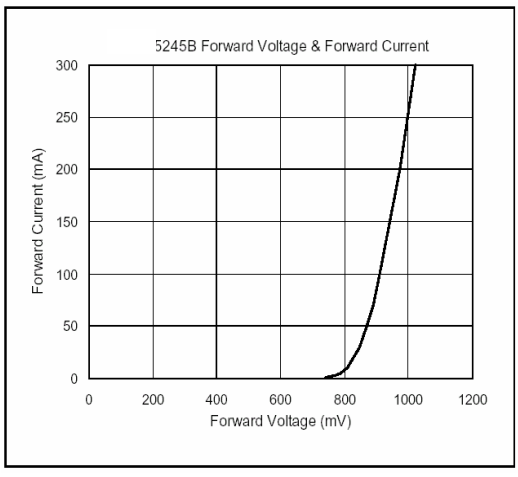

5241B Reverse Voltage & Reverse Current
Reverse Current (mA)
100
80
60
40
20
0
6000
7000
8000
9000
10000
11000
Revese Voltage (mV)

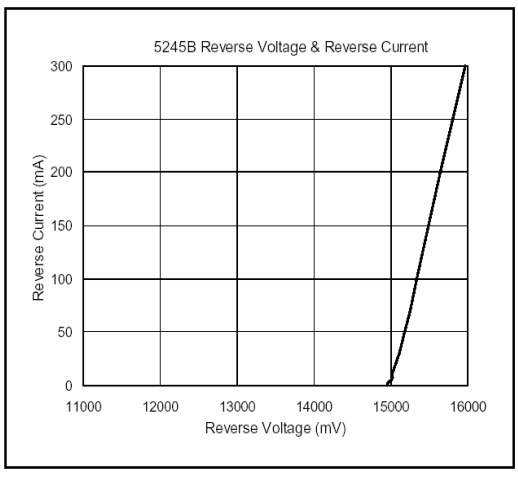

5242B Forward Voltage & Forward Current
Forward Current (mA)
0
50
100
150
200
250
300
0
200
400
600
800
1000
1200
Forward Voltage (mV)

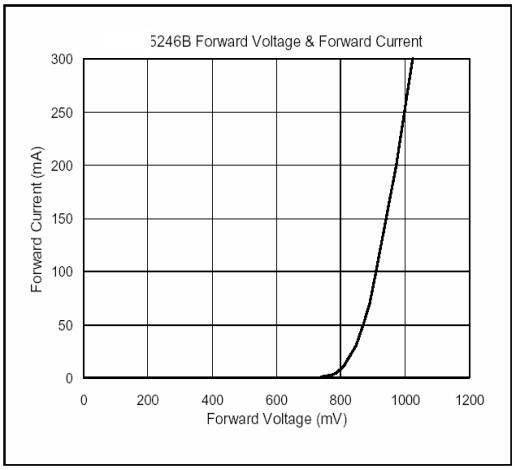

5242B Reverse Voltage & Reverse Current
Reverse Current (mA)
0
50
100
150
200
250
300
11500
11600
11700
11800
11900
12000
12100
12200
12300
Reverse Voltage (mV)

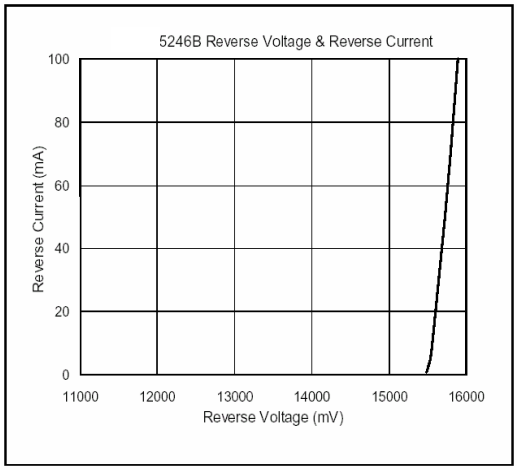

5243B Forward Voltage & Forward Current
Forward Current (mA)
0
50
100
150
200
250
300
0
200
400
600
800
1000
1200
Forward Voltage (mV)

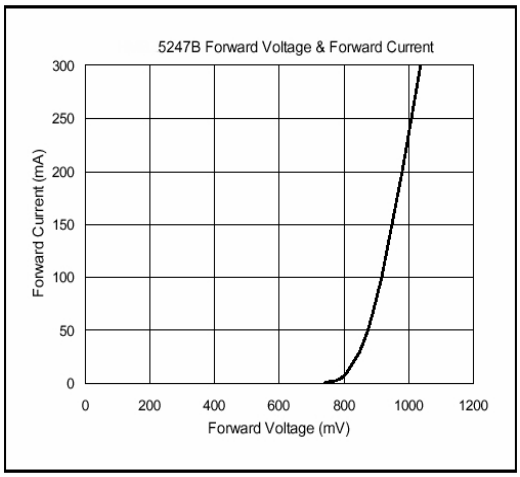

5243B Reverse Voltage & Reverse Current
Reverse Current (mA)
0
50
100
150
200
250
300
8000
9000
10000
11000
12000
13000
14000
Reverse Voltage (mV)

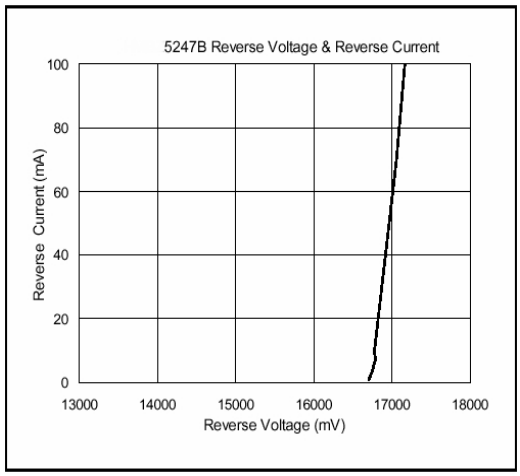

5245B Forward Voltage & Forward Current
Forward Current (mA)
0
50
100
150
200
250
300
0
200
400
600
800
1000
1200
Forward Voltage (mV)

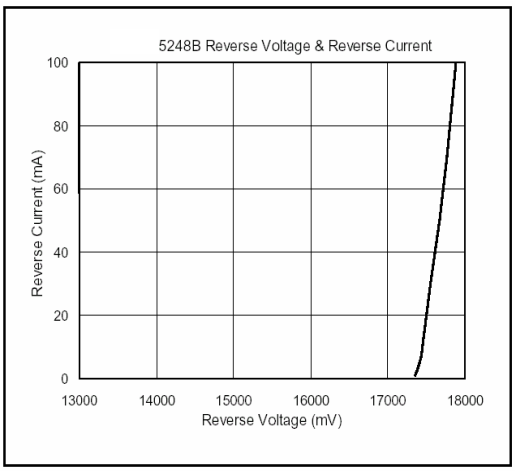

5245B Reverse Voltage & Reverse Current
Reverse Current (mA)
0
50
100
150
200
250
300
11000
12000
13000
14000
15000
16000
Reverse Voltage (mV)

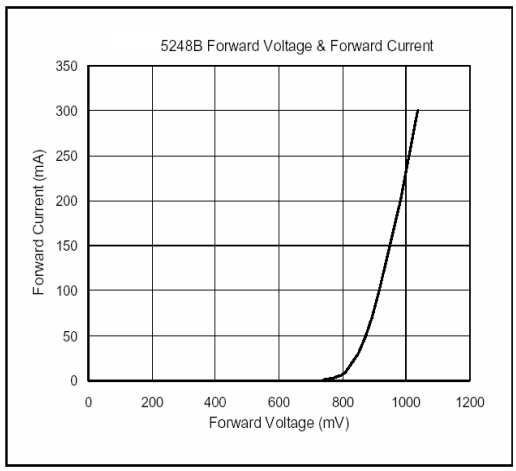

5246B Forward Voltage & Forward Current
Forward Current (mA)
300
250
200
150
100
50
0
0
200
400
600
800
1000
1200
Forward Voltage (mV)

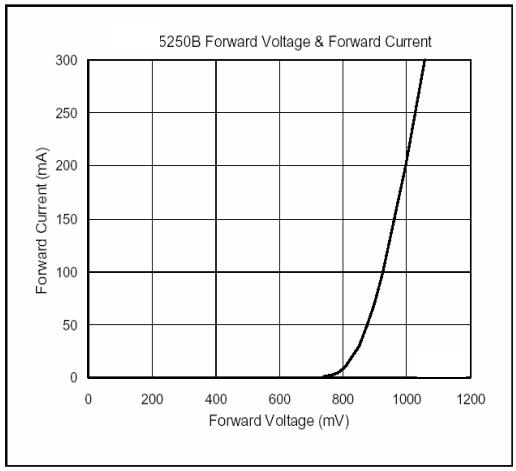

5246B Reverse Voltage & Reverse Current
Reverse Current (mA)
100
80
60
40
20
0
11000
12000
13000
14000
15000
16000
Reverse Voltage (mV)

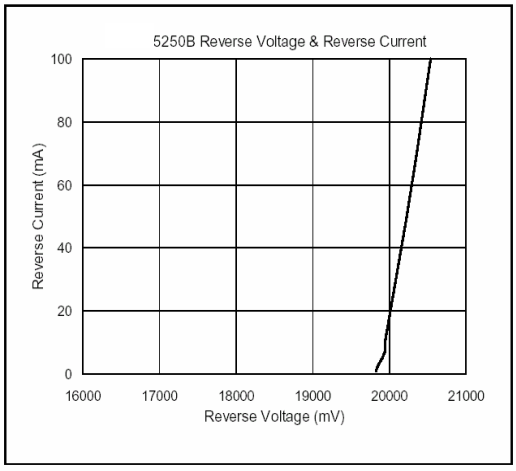

5247B Forward Voltage & Forward Current
Forward Current (mA)
300
250
200
150
100
50
0
0
200
400
600
800
1000
1200
Forward Voltage (mV)

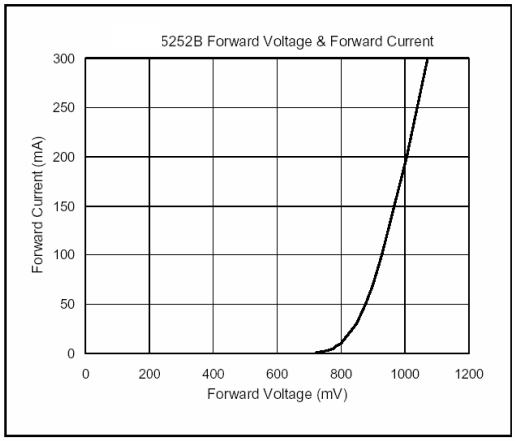

5247B Reverse Voltage & Reverse Current
Reverse Current (mA)
100
80
60
40
20
0
13000
14000
15000
16000
17000
18000
Reverse Voltage (mV)

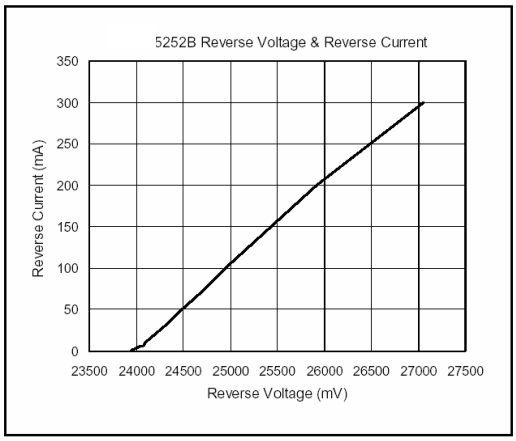

5248B Reverse Voltage & Reverse Current
Reverse Current (mA)
100
80
60
40
20
0
13000
14000
15000
16000
17000
18000
Reverse Voltage (mV)

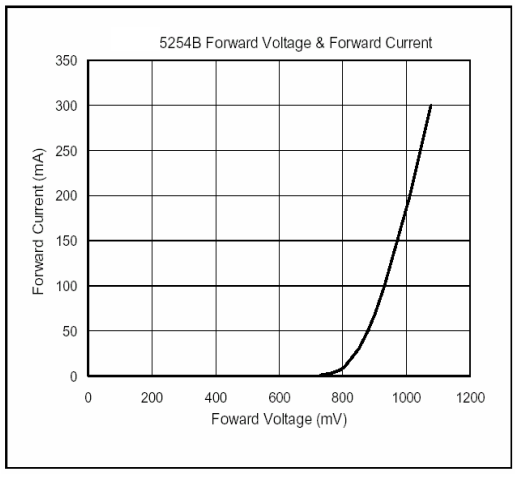

5248B Forward Voltage & Forward Current
Forward Current (mA)
350
300
250
200
150
100
50
0
0
200
400
600
800
1000
1200
Forward Voltage (mV)

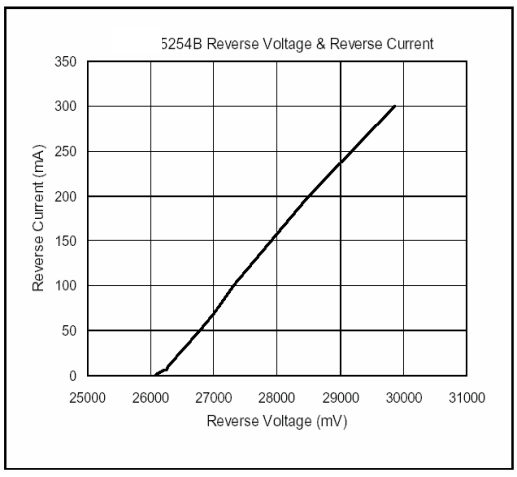

5250B Forward Voltage & Forward Current
Forward Current (mA)
300
250
200
150
100
50
0
0
200
400
600
800
1000
1200
Forward Voltage (mV)

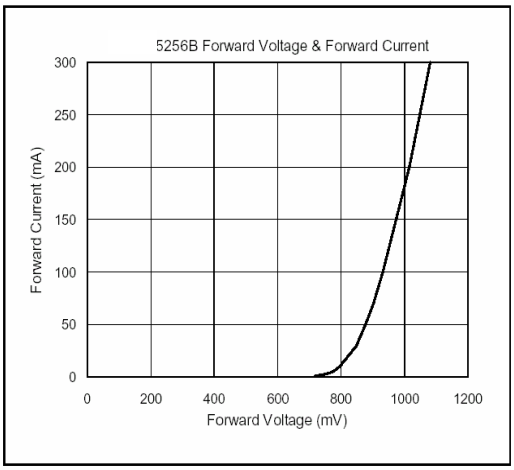

5250B Reverse Voltage & Reverse Current
Reverse Current (mA)
100
80
60
40
20
0
16000
17000
18000
19000
20000
21000
Reverse Voltage (mV)

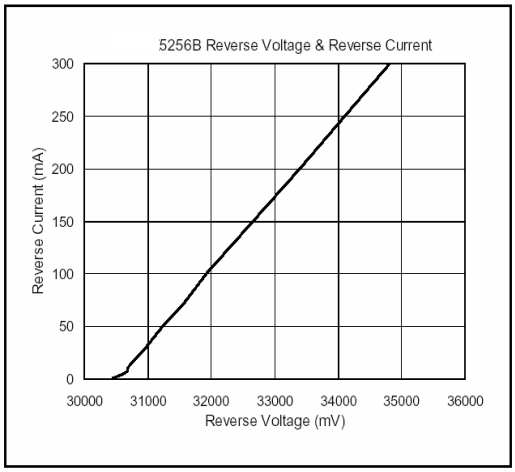

5252B Forward Voltage & Forward Current
Forward Current (mA)
300
250
200
150
100
50
0
0
200
400
600
800
1000
1200
Forward Voltage (mV)

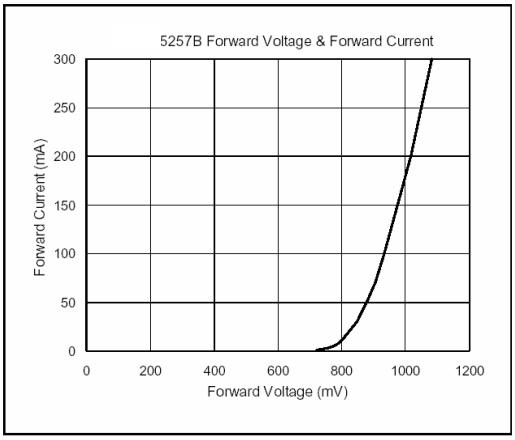

5252B Reverse Voltage & Reverse Current
Reverse Current (mA)
350
300
250
200
150
100
50
0
23500
24000
24500
25000
25500
26000
26500
27000
27500
Reverse Voltage (mV)

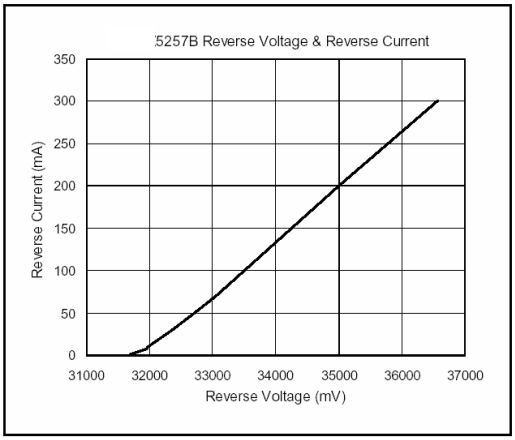

5254B Forward Voltage & Forward Current
Forward Current (mA)
350
300
250
200
150
100
50
0
0
200
400
600
800
1000
1200
Foward Voltage (mV)


5254B Reverse Voltage & Reverse Current
Reverse Current (mA)
350
300
250
200
150
100
50
0
25000
26000
27000
28000
29000
30000
31000
Reverse Voltage (mV)









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