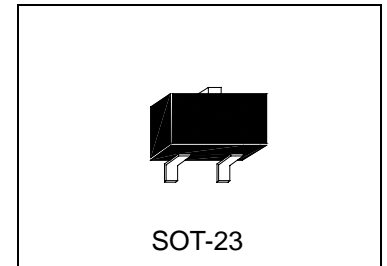




**HMBZ5221B**  
 thru  
**HMBZ5257B** ZENER DIODES



**Thermal Characteristics**

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

\*FR-5 - 1.0x0.75x0.062 in. \*\*Alumina - 0.4x0.3x0.024 in. 99.5% alumina.

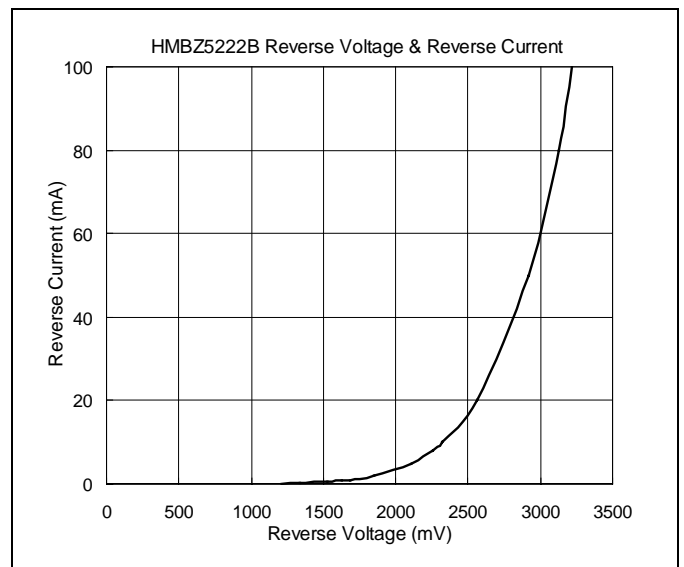
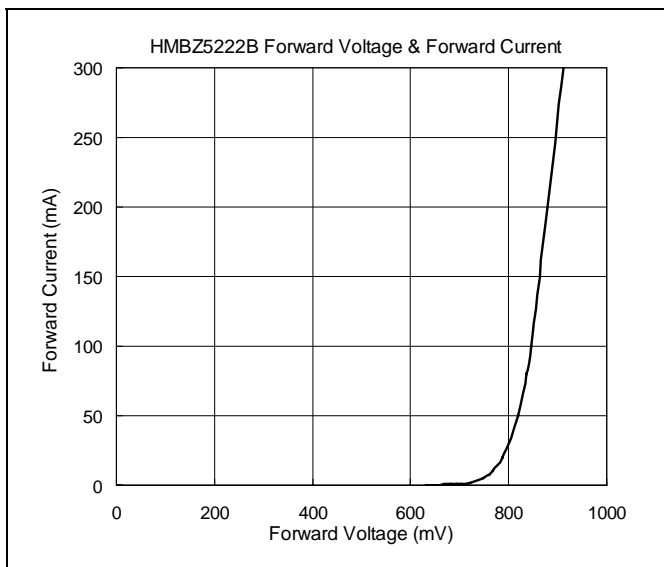
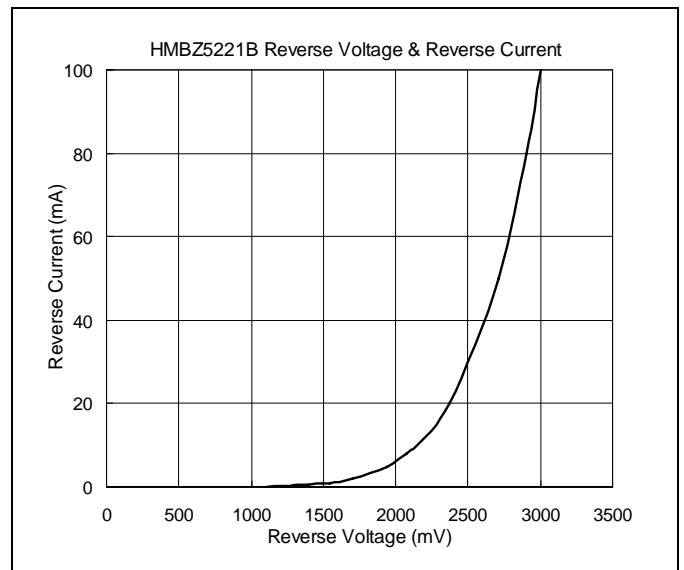
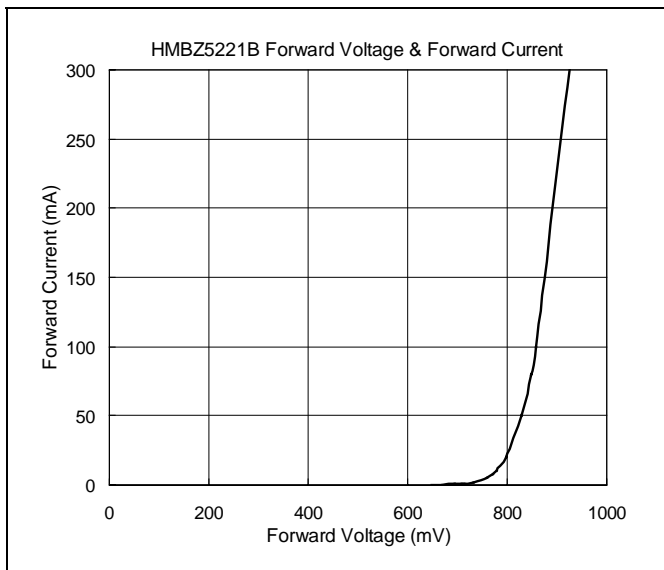
**Electrical Characteristic** (VF=0.9V Max @IF=10mA for all types.)

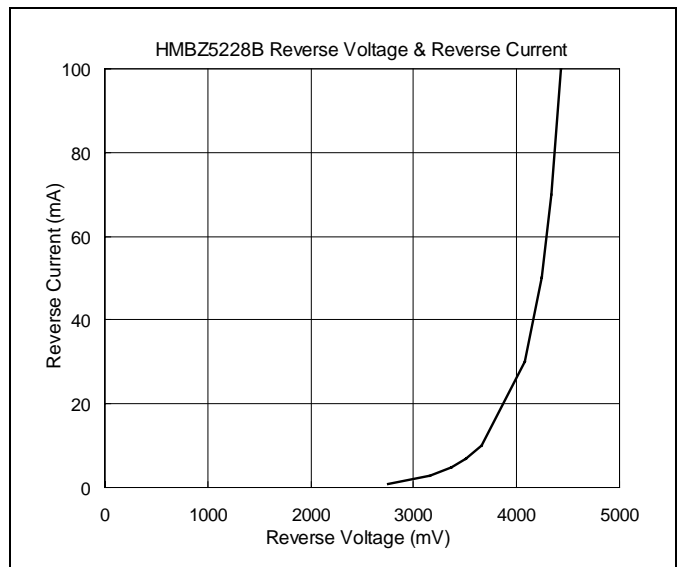
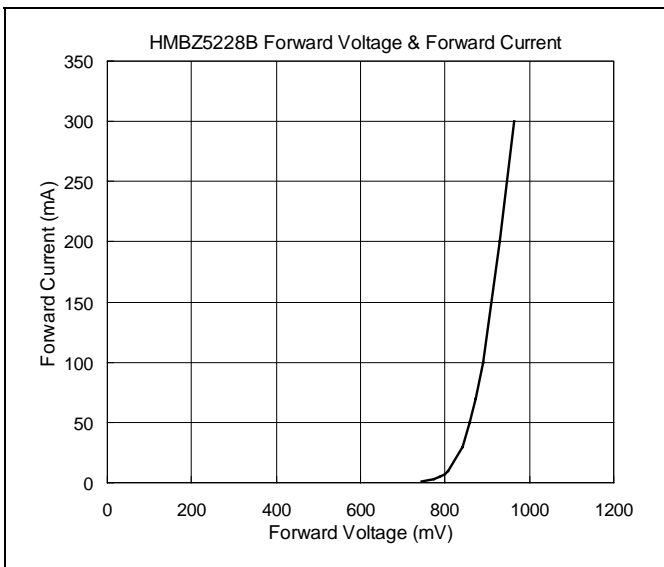
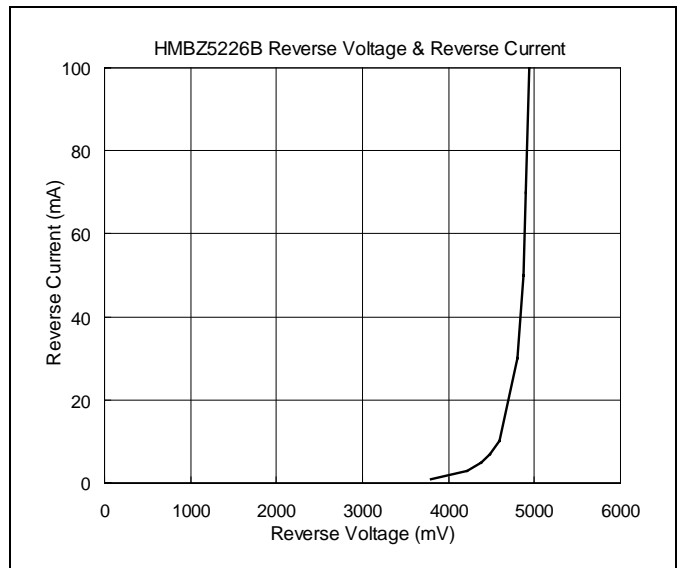
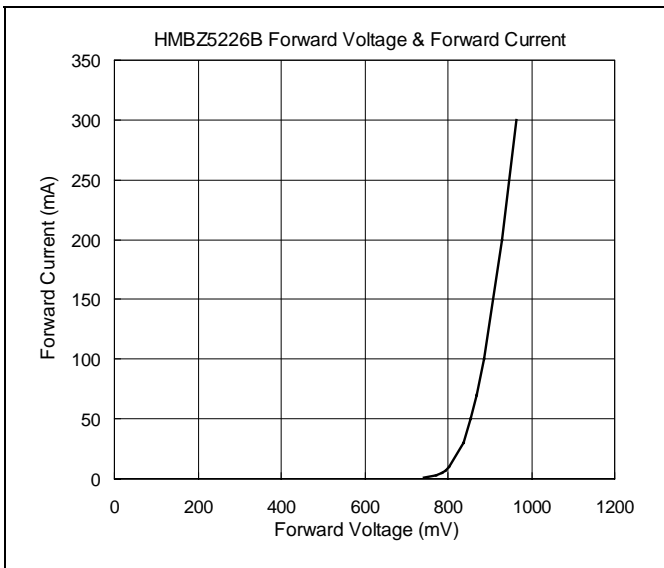
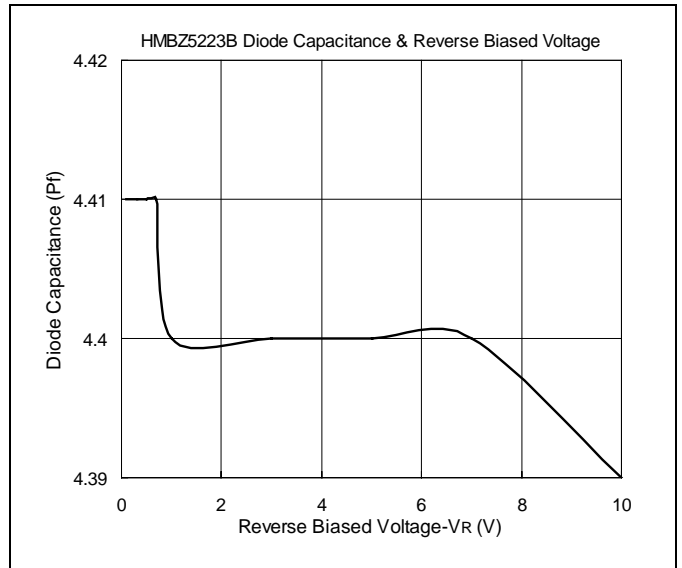
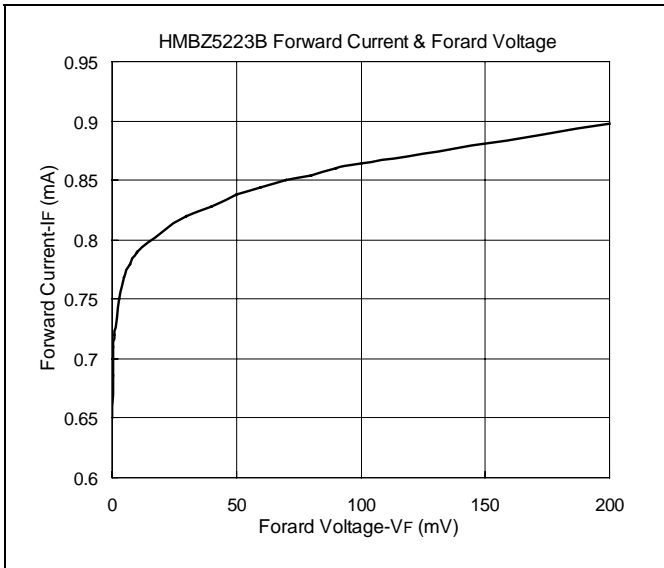
Device	Marking Code	Test Current IZT(mA)	Zener Voltage VZ(V)	ZZK IZ=0.25mA ΩMax	ZZT IZ=IZT ΩMax	Max. Reverse Current IR(μA) @VR(V)
HMBZ52221B	18A	20	2.4 ±5%	1200	30	100 1.0
HMBZ5222B	18B	20	2.5 ±5%	1250	30	100 1.0
HMBZ5223B	18C	20	2.7 ±5%	1300	30	75 1.0
HMBZ5225B	18E	20	3.0 ±5%	1600	29	50 1.0
HMBZ5226B	8A	20	3.3 ±5%	1600	28	25 1.0
HMBZ5227B	8B	20	3.6 ±5%	1700	24	15 1.0
HMBZ5228B	8C	20	3.9 ±5%	1900	23	10 1.0
HMBZ5229B	8D	20	4.3 ±5%	2000	22	5.0 1.0
HMBZ5230B	8E	20	4.7 ±5%	1900	19	5.0 2.0
HMBZ5231B	8F	20	5.1 ±5%	1600	17	5.0 2.0
HMBZ5232B	8G	20	5.6 ±5%	1600	11	5.0 3.0
HMBZ5233B	8H	20	6.0 ±5%	1600	7.0	5.0 3.5
HMBZ5234B	8J	20	6.2 ±5%	1000	7.0	5.0 4.0
HMBZ5235B	8K	20	6.8 ±5%	750	5.0	3.0 5.0
HMBZ5236B	8L	20	7.5 ±5%	500	6.0	3.0 6.0
HMBZ5237B	8M	20	8.2 ±5%	500	8.0	3.0 6.5
HMBZ5238B	8N	20	8.7 ±5%	600	8.0	3.0 6.5
HMBZ5239B	8P	20	9.1 ±5%	600	10	3.0 7.0
HMBZ5240B	8Q	20	10 ±5%	600	17	3.0 8.0
HMBZ5241B	8R	20	11 ±5%	600	22	2.0 8.4
HMBZ5242B	8S	20	12 ±5%	600	30	1.0 9.1
HMBZ5243B	8T	9.5	13 ±5%	600	13	0.5 9.9
HMBZ5244B	8U	9.0	14 ±5%	600	15	0.1 10

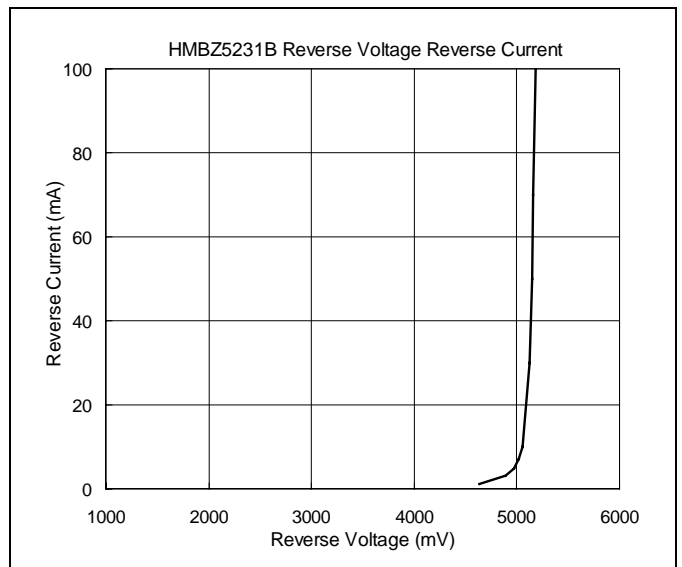
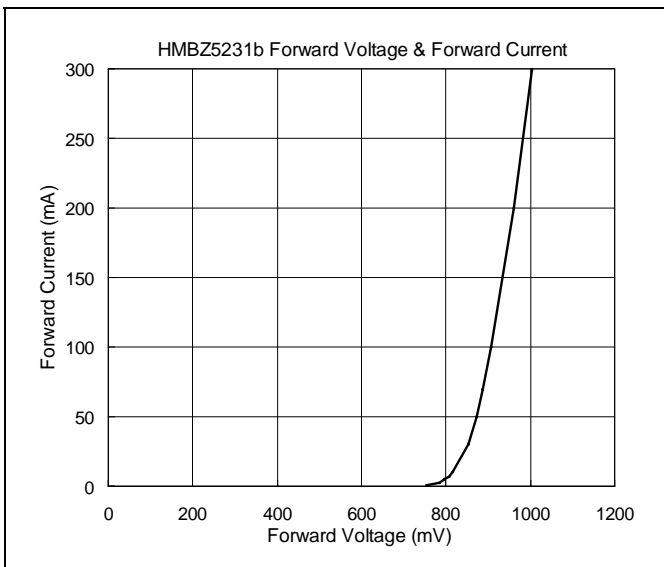
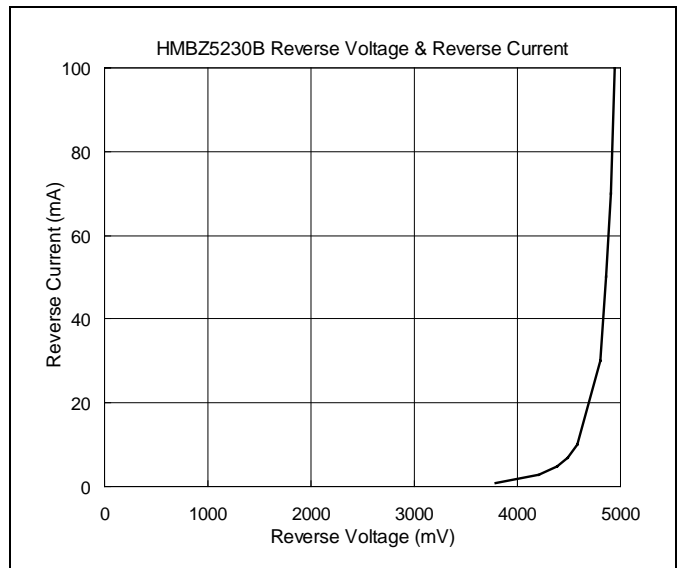
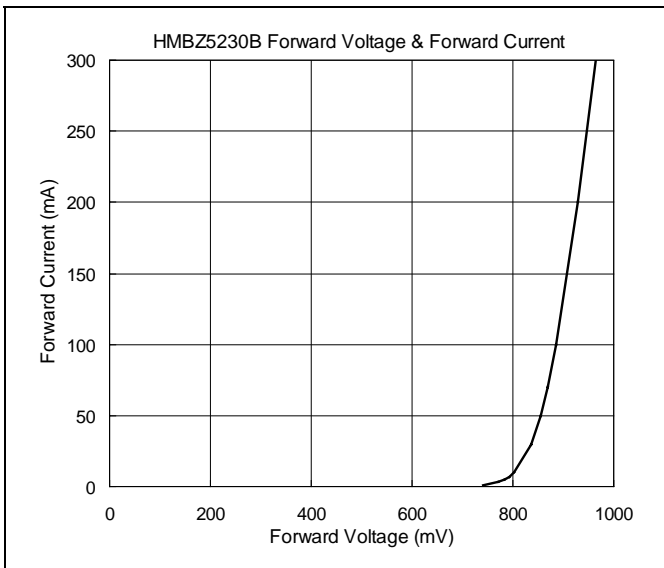
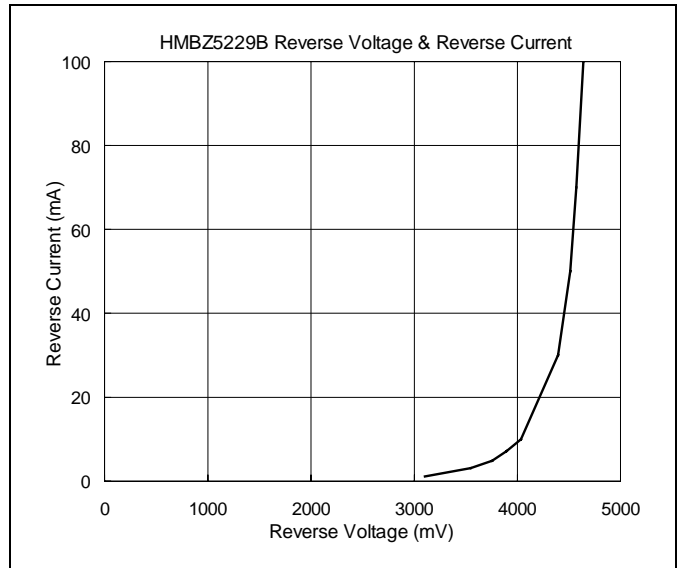
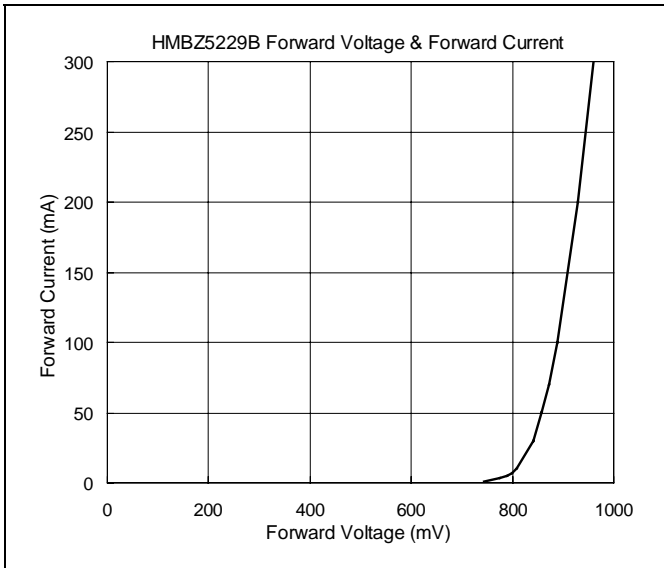


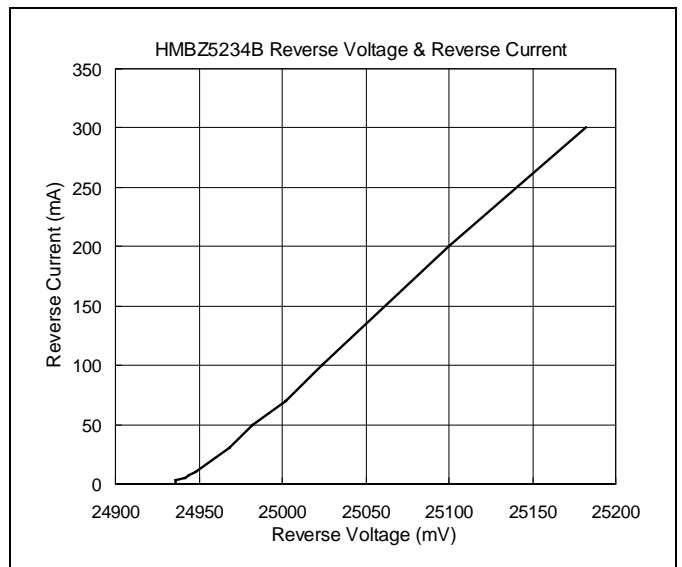
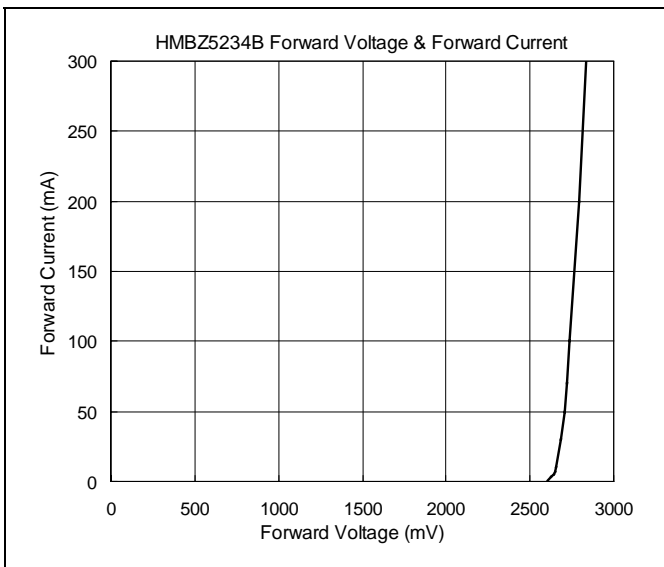
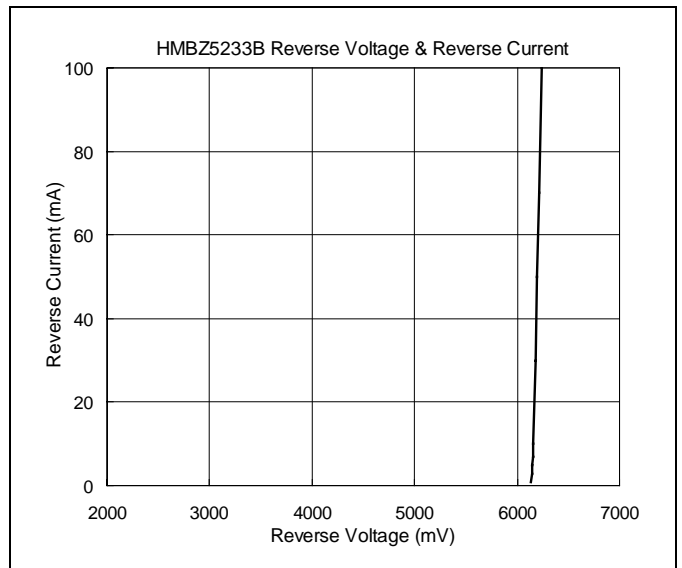
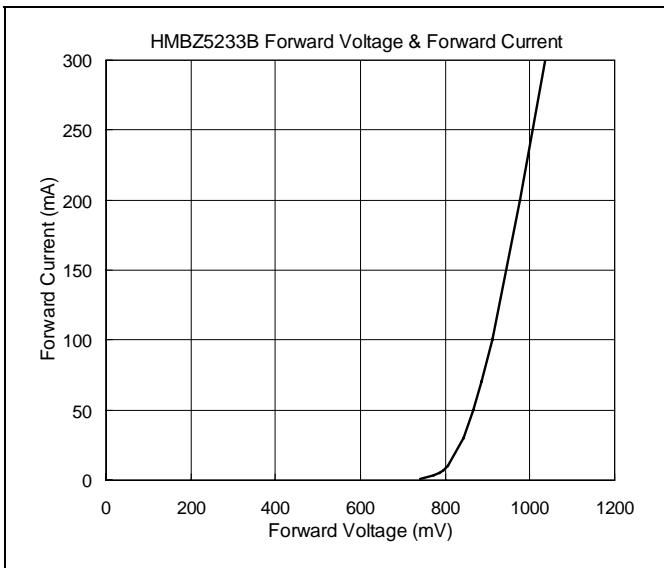
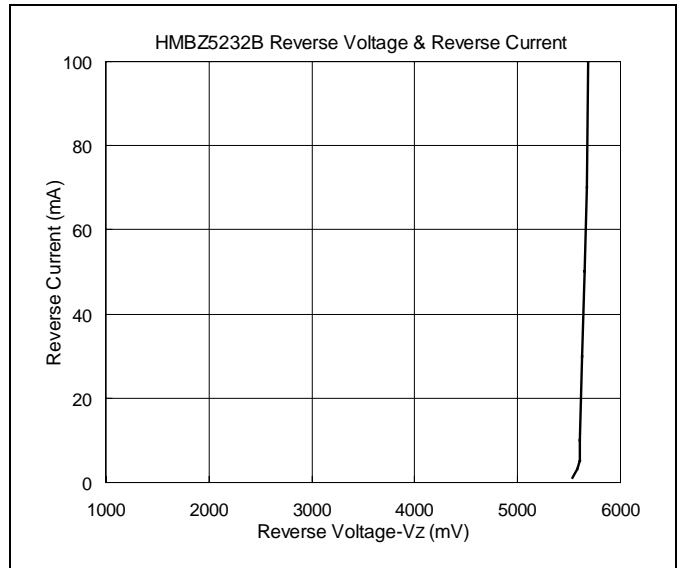
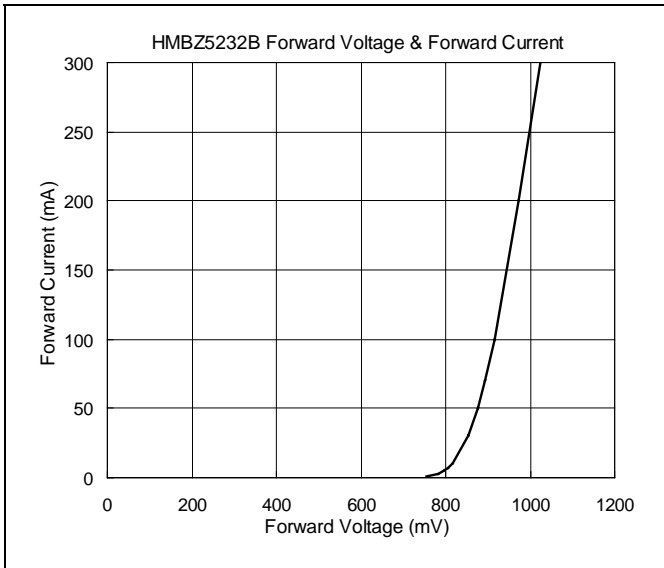
HMBZ5245B	8V	8.5	15 ±5%	600	16	0.1	11
HMBZ5246B	8W	7.8	16 ±5%	600	17	0.1	12
HMBZ5247B	8X	7.4	17 ±5%	600	19	0.1	13
HMBZ5248B	8Y	7.0	18 ±5%	600	21	0.1	14
HMBZ5249B	8Z	6.6	19 ±5%	600	23	0.1	14
HMBZ5250B	81A	6.2	20 ±5%	600	25	0.1	15
HMBZ5251B	81B	5.6	22 ±5%	600	29	0.1	17
HMBZ5252B	81C	5.2	24 ±5%	600	33	0.1	18
HMBZ5253B	81D	5.0	25 ±5%	600	35	0.1	19
HMBZ5254B	81E	4.6	27 ±5%	600	41	0.1	21
HMBZ5255B	81F	4.5	28 ±5%	600	44	0.1	21
HMBZ5256B	81G	4.2	30 ±5%	600	49	0.1	23
HMBZ5257B	81H	3.8	33 ±5%	700	58	0.1	25

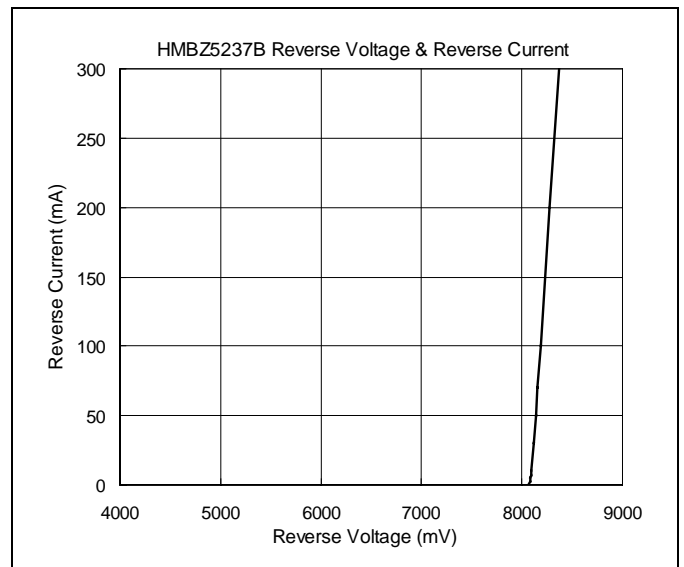
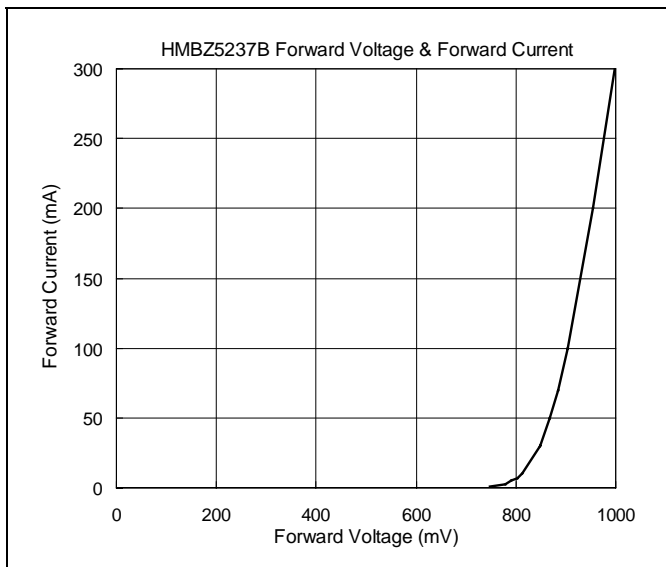
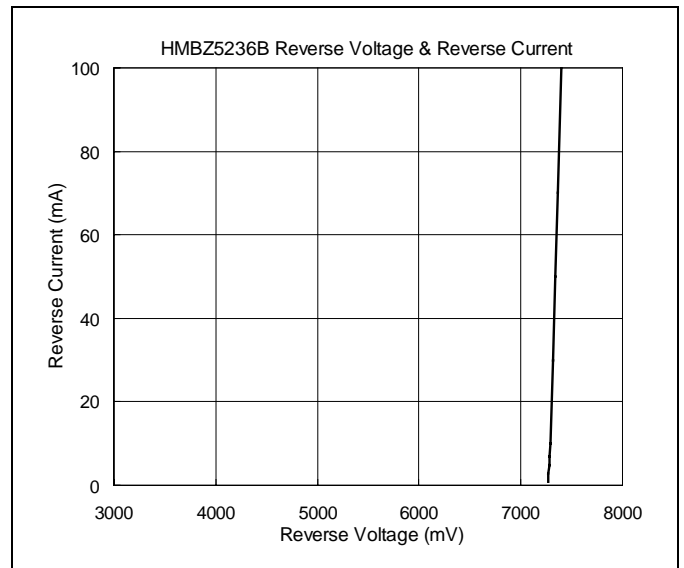
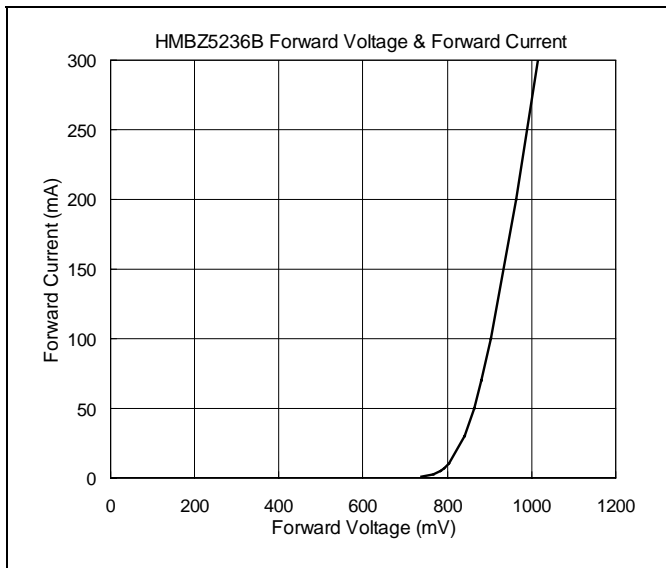
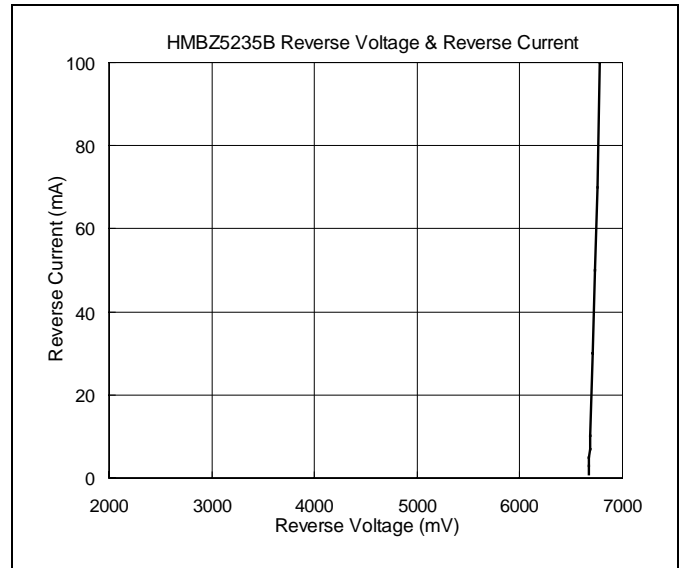
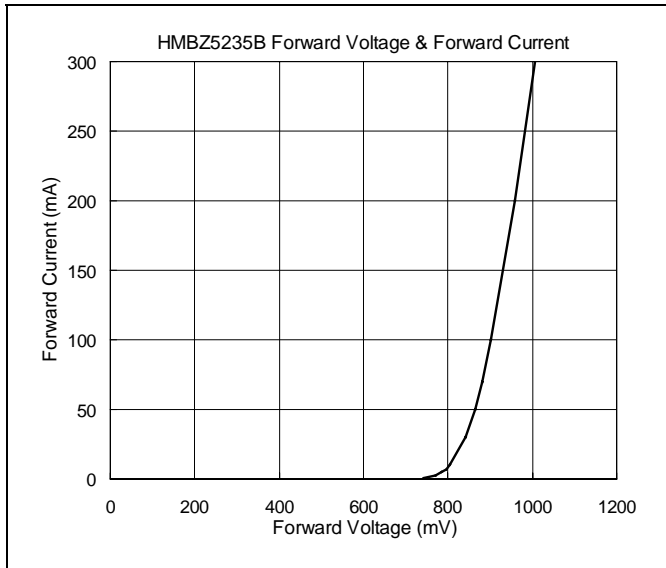
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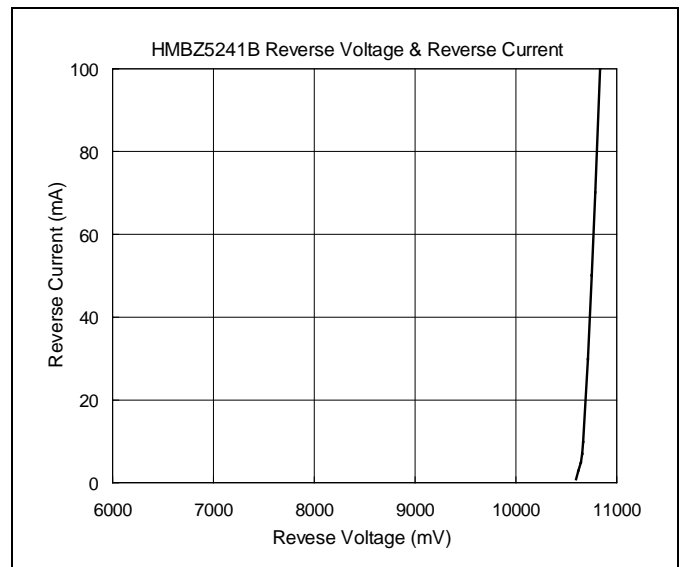
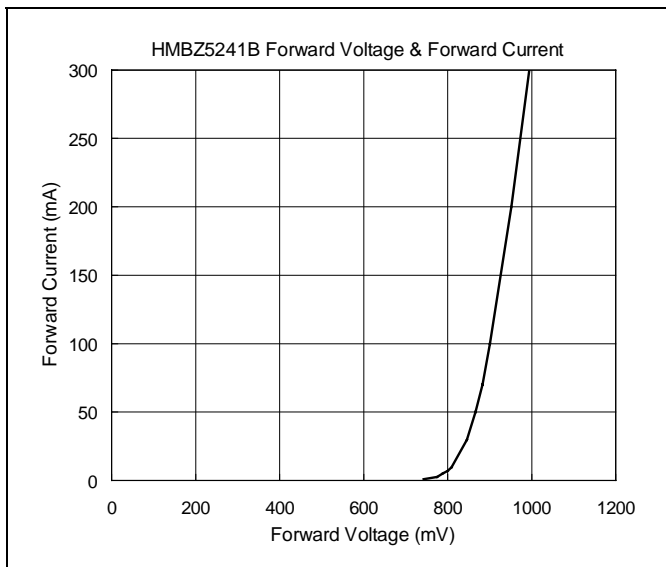
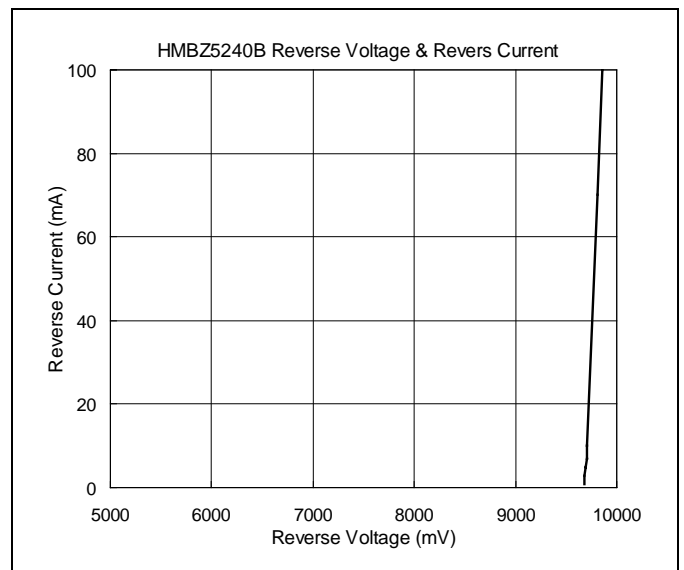
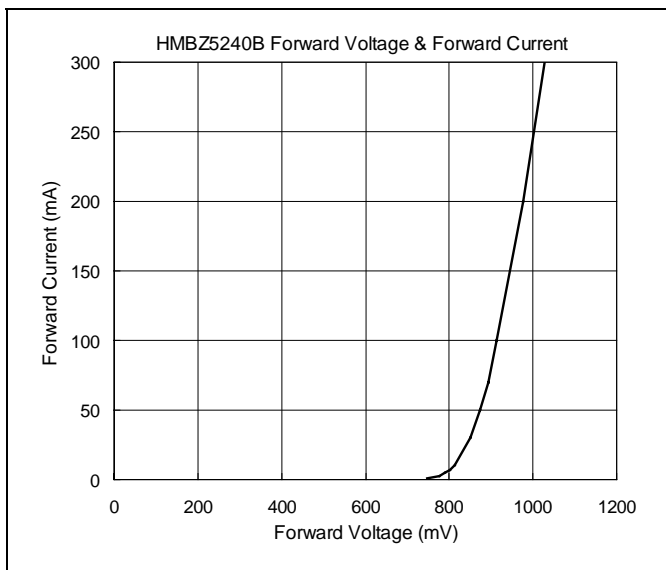
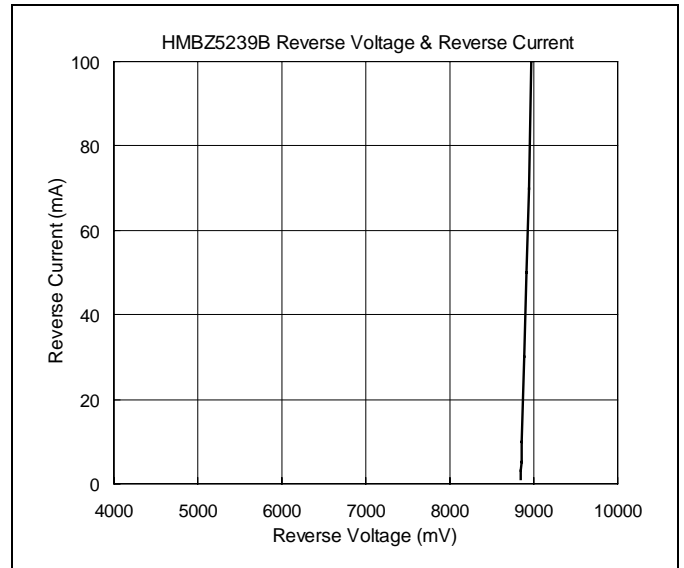
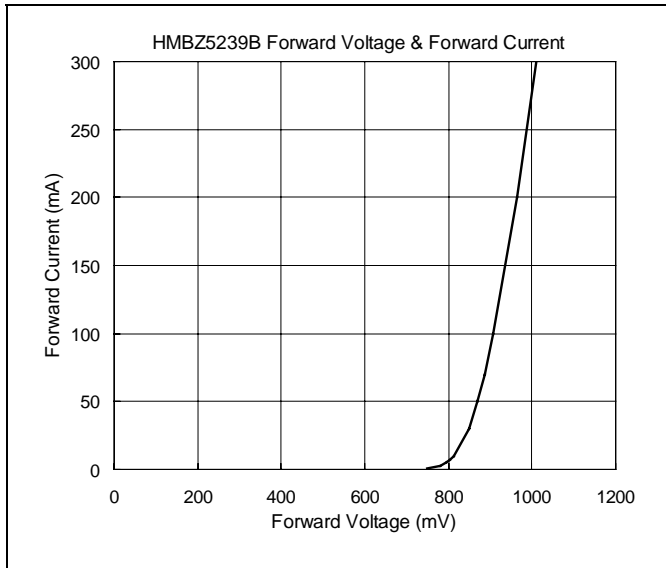


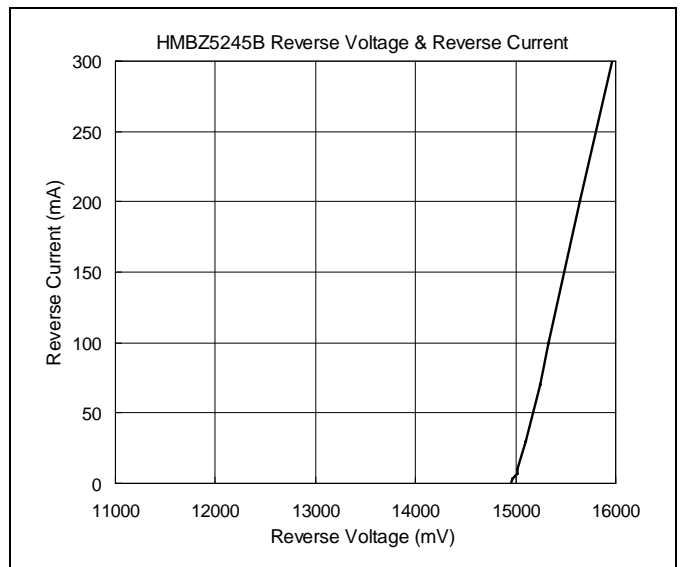
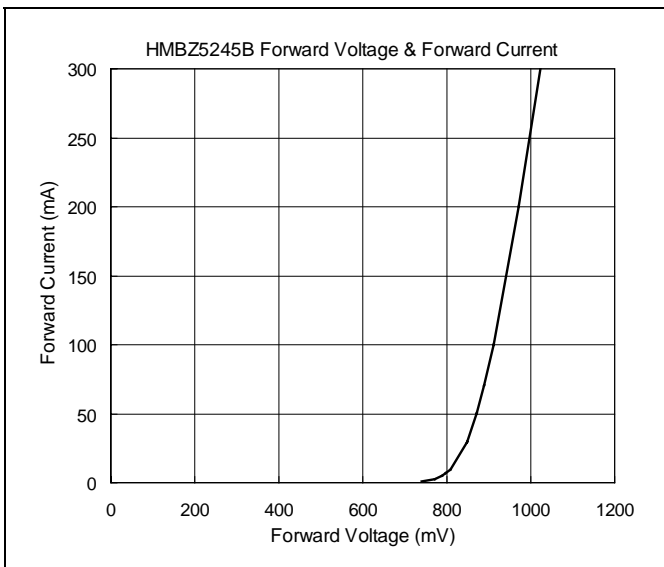
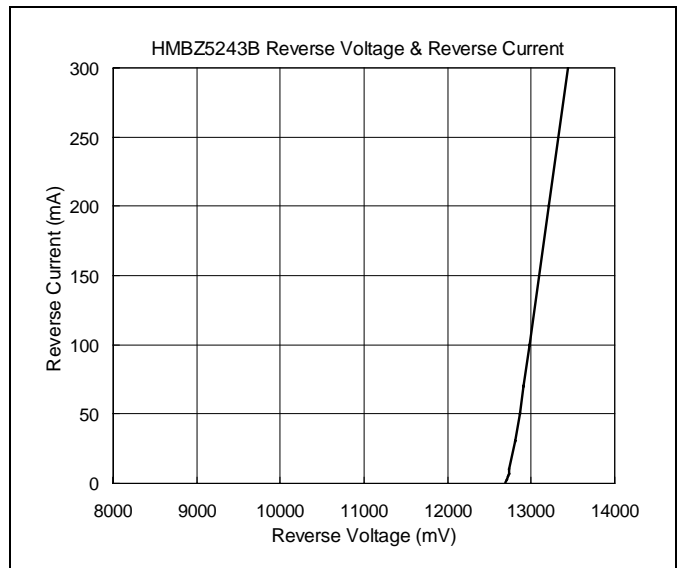
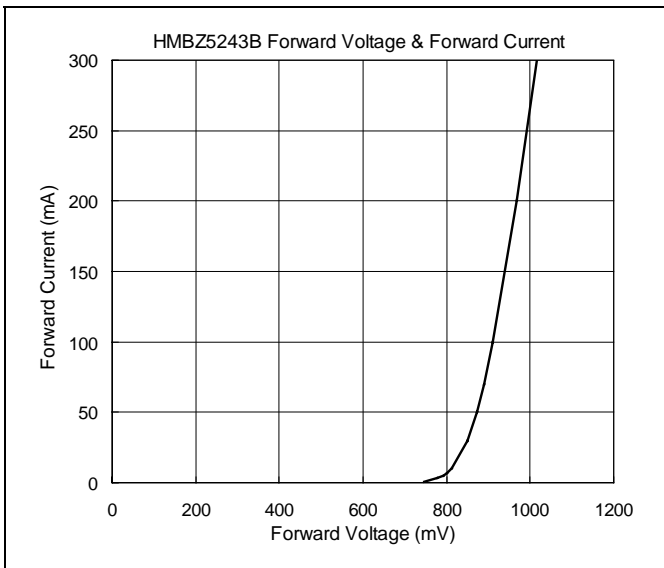
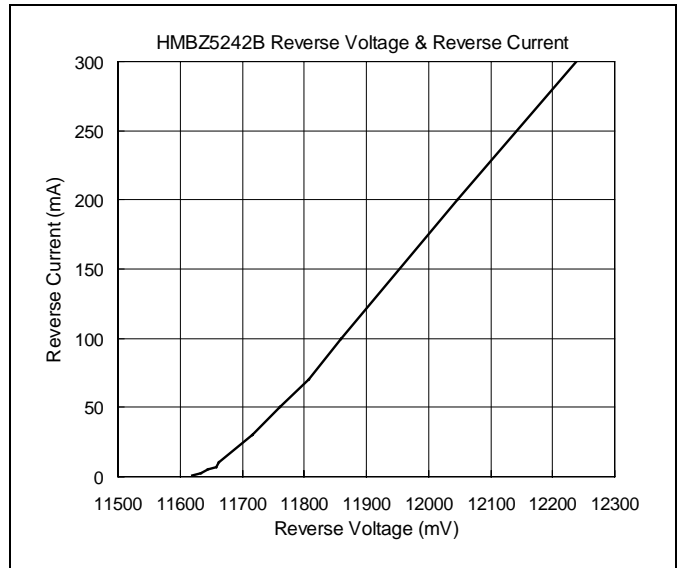
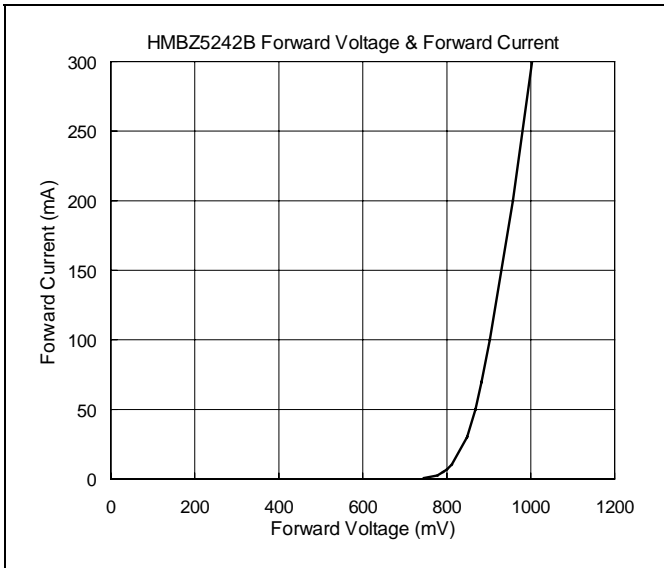


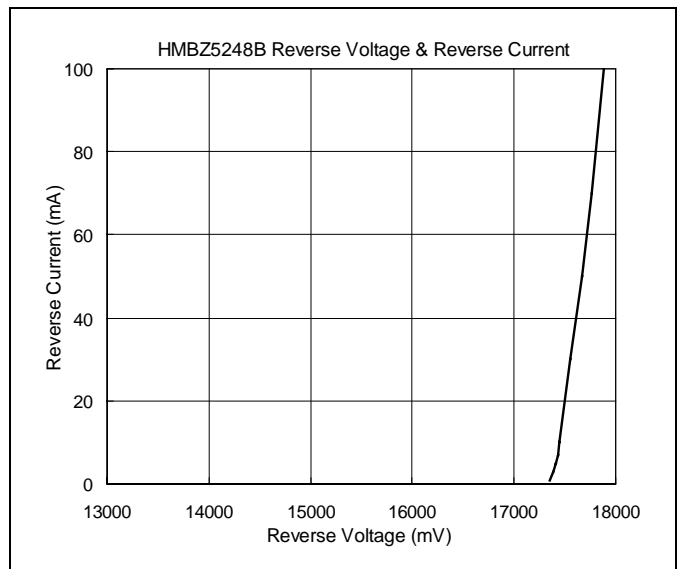
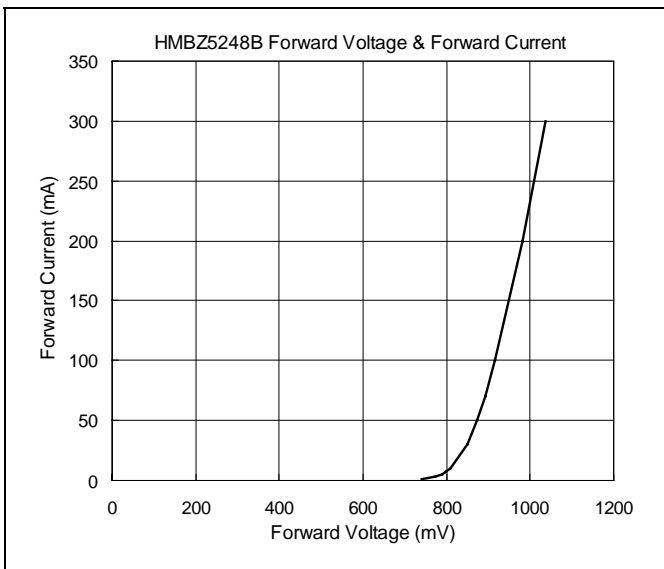
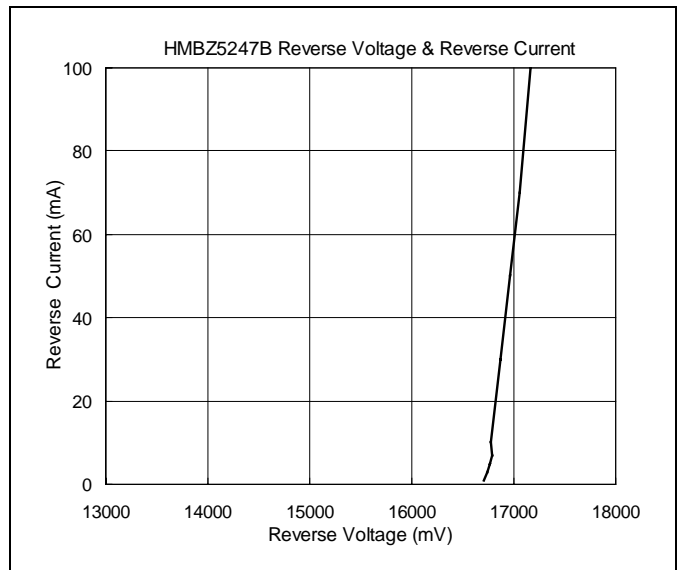
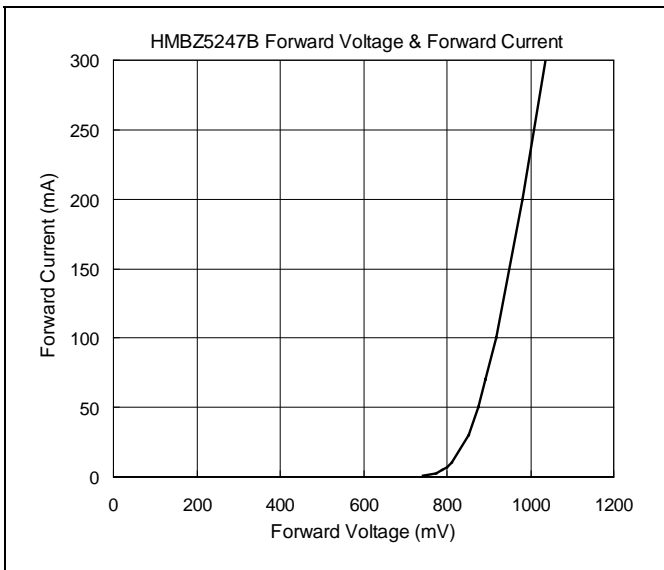
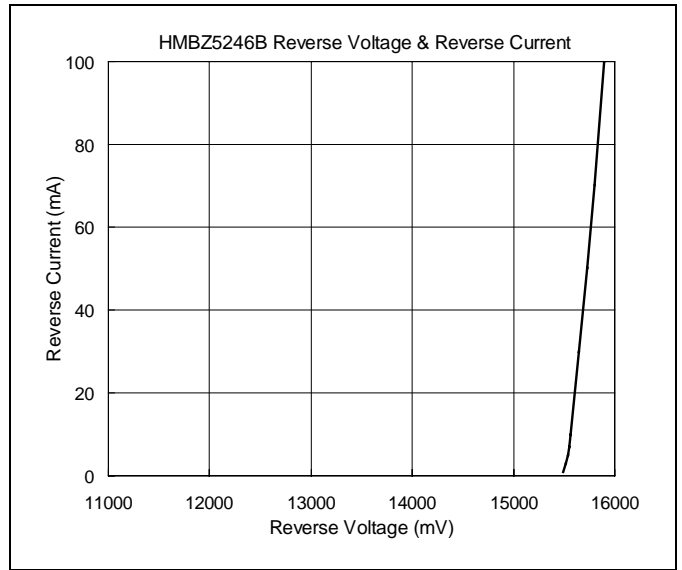
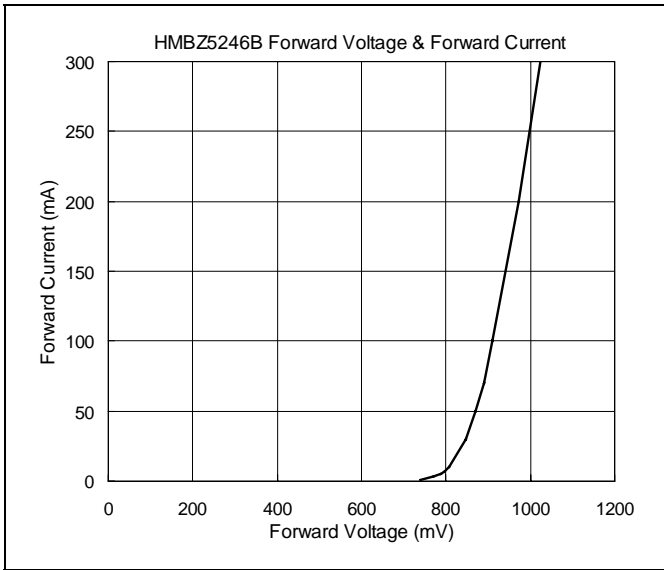


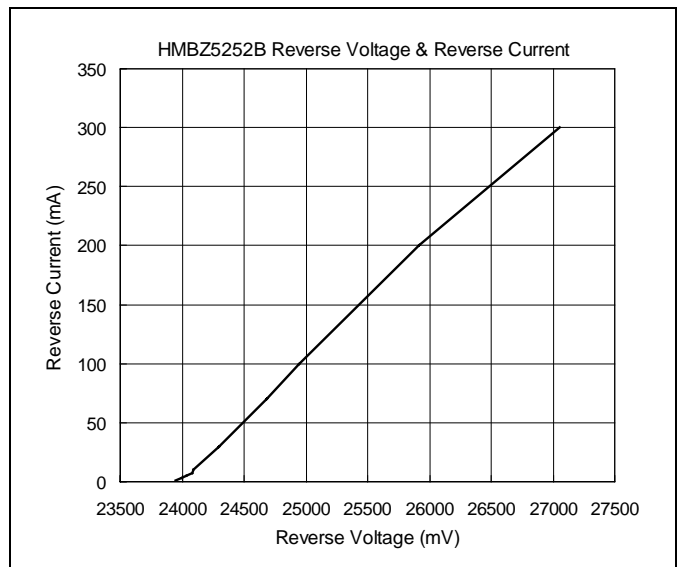
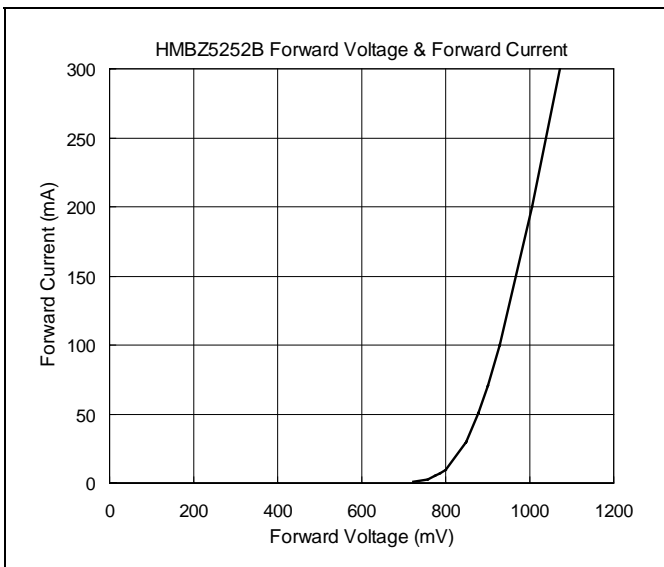
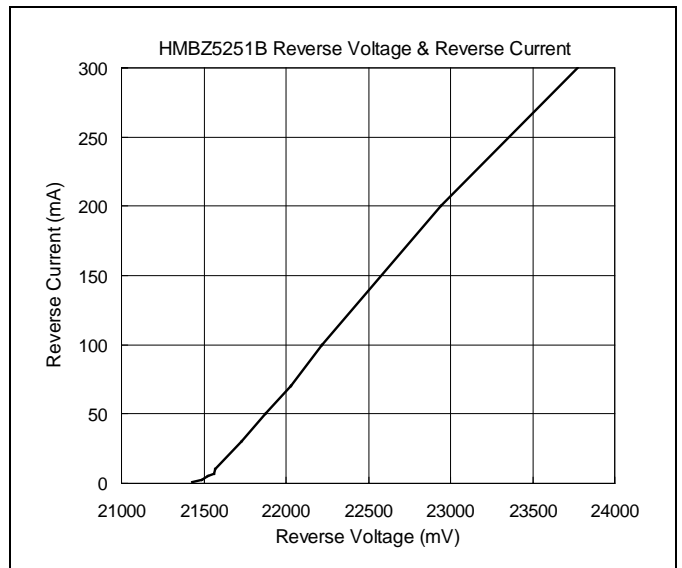
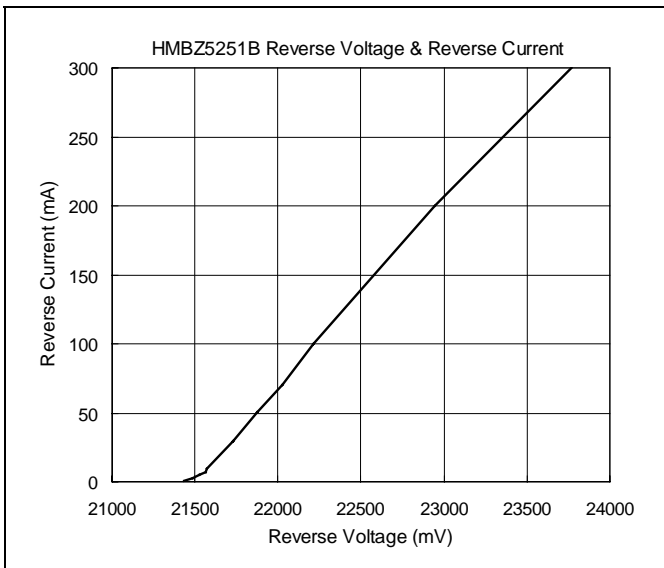
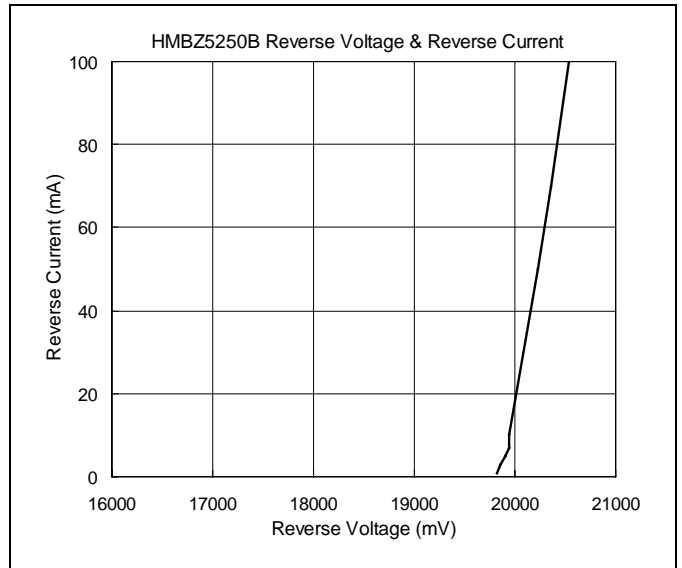
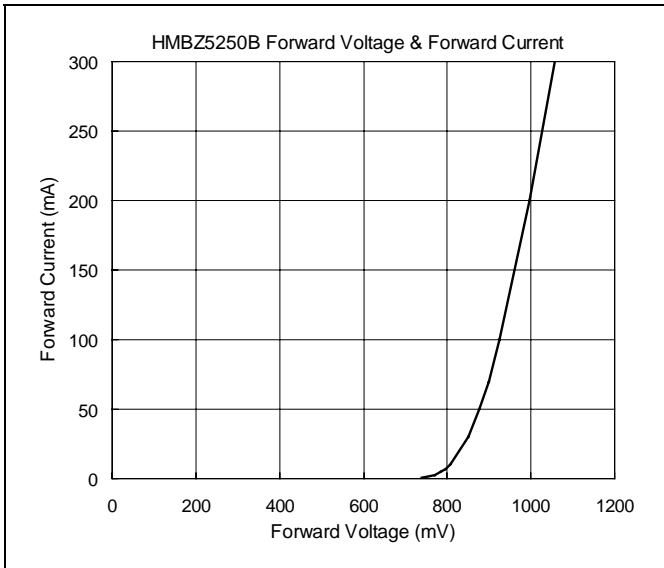


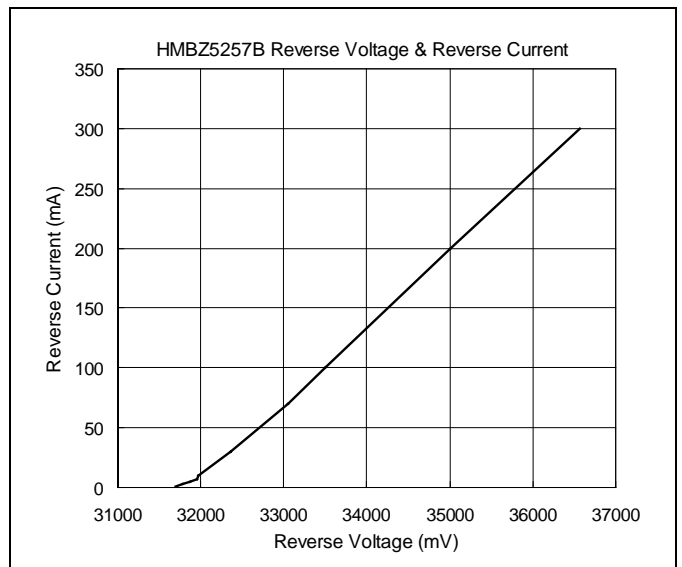
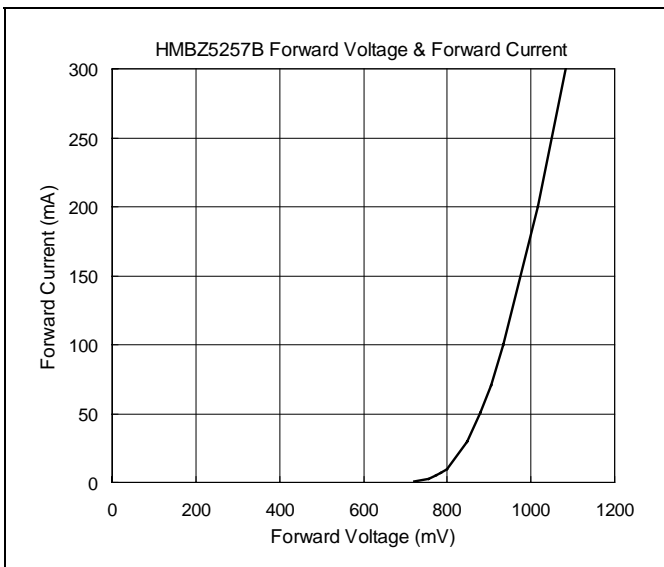
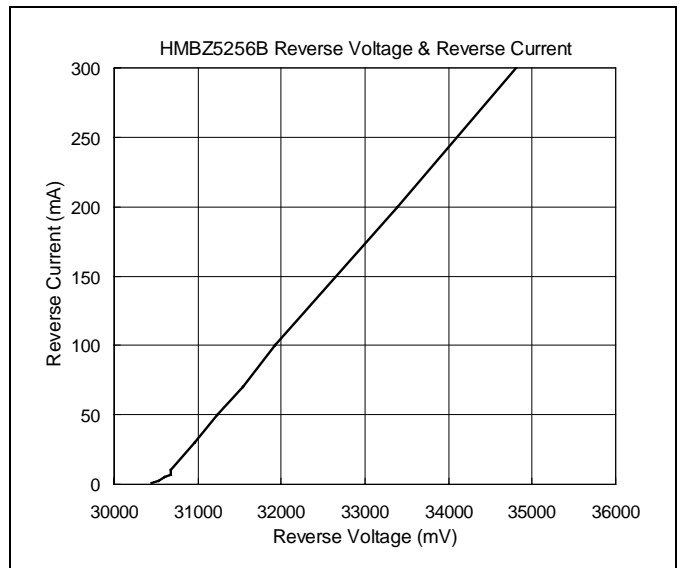
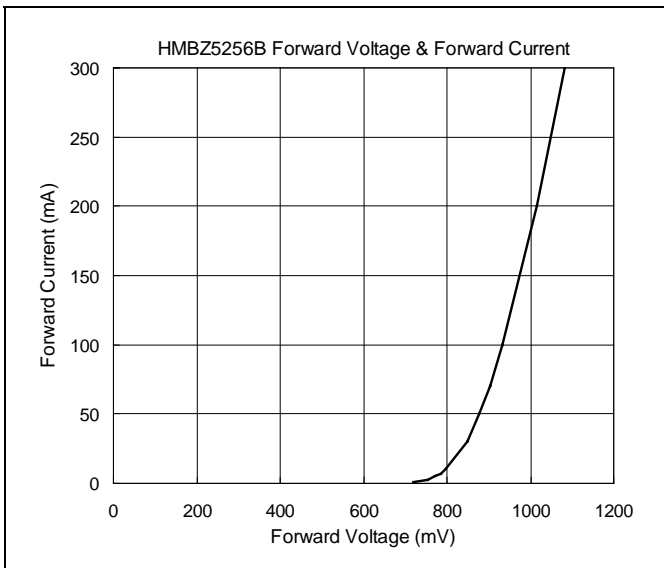
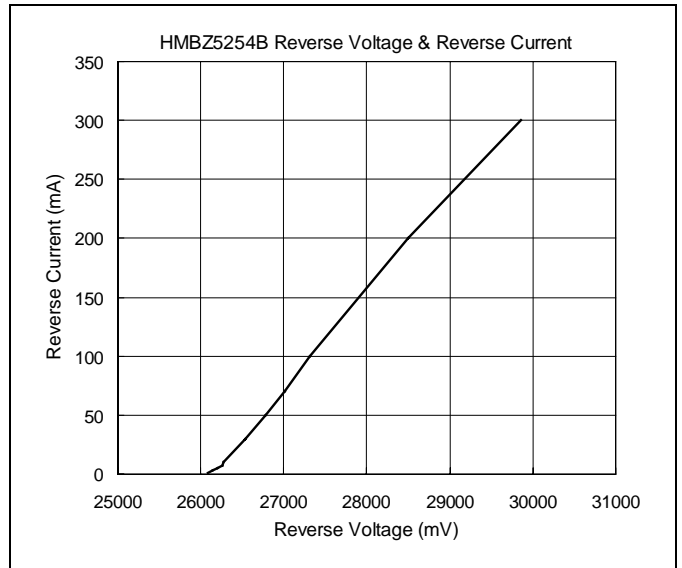
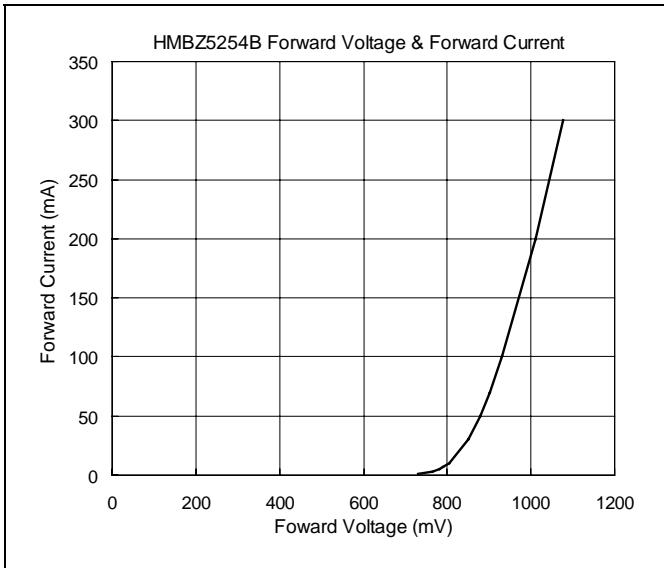






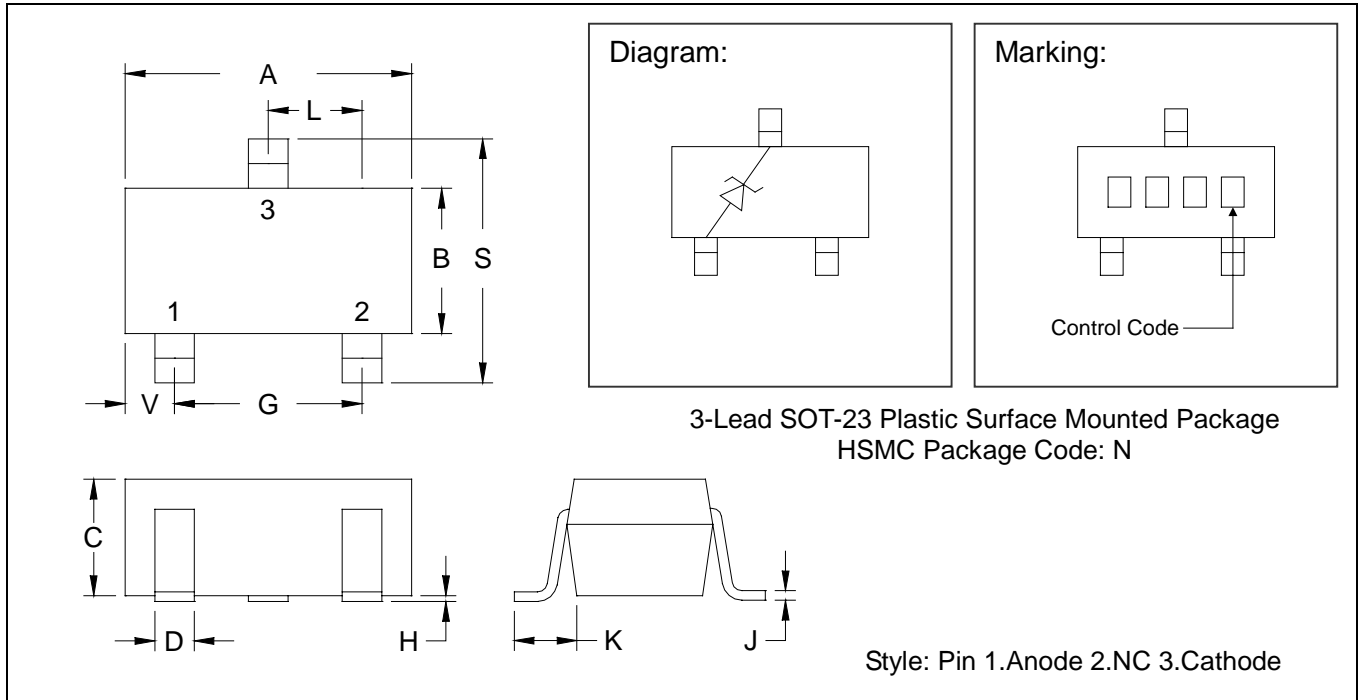








### SOT-23 Dimension



\*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1102	0.1204	2.80	3.04	J	0.0034	0.0070	0.085	0.177
B	0.0472	0.0630	1.20	1.60	K	0.0128	0.0266	0.32	0.67
C	0.0335	0.0512	0.89	1.30	L	0.0335	0.0453	0.85	1.15
D	0.0118	0.0197	0.30	0.50	S	0.0830	0.1083	2.10	2.75
G	0.0669	0.0910	1.70	2.30	V	0.0098	0.0256	0.25	0.65
H	0.0005	0.0040	0.013	0.10					

- Notes:**
- 1.Dimension and tolerance based on our Spec. dated Sep. 07,1997.
  - 2.Controlling dimension: millimeters.
  - 3.Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.
  - 4.If there is any question with packing specification or packing method, please contact your local HSMC sales office.

**Material:**

- Lead: 42 Alloy; solder plating
- Mold Compound: Epoxy resin family, flammability solid burning class: UL94V-0

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