

**Author:** Henry Chi, Sr. Manager Product Marketing  
**Tel:** +886 2 2911 3861 ext. 6533  
**E-mail:** [henry.chi@vishay.com](mailto:henry.chi@vishay.com)

## New TransZorb® TVS Offer Tighter $\pm 3.5\%$ Breakdown Voltage Tolerance for Precise Breakdown Voltage, High Peak Surge Current, and Low Clamping Voltage

### Product Benefits:

- Low-profile DO-214AA package
- Tightened breakdown voltage tolerance of  $\pm 3.5\%$
- Available with uni-directional polarity
- Temperature range from  $-55\text{ }^{\circ}\text{C}$  to  $+150\text{ }^{\circ}\text{C}$
- Meet the MSL Level 1 standard, per -STD-020, LF maximum peak of  $260\text{ }^{\circ}\text{C}$
- Ideal for automated placement
- RoHS-compliant and halogen-free



### Market Applications:

- DC adapter power line protection, power supply snubber circuits, and general voltage surge protection in consumer, computer, industrial, and telecommunication equipment

### The News:

Vishay Intertechnology introduces a new series of surface-mount TransZorb transient voltage suppressors (TVS) in the low-profile DO-214AA package. Vishay General Semiconductor SMBJXXD series TVS achieve  $\pm 3.5\%$  breakdown voltage tolerance and very low reverse leakage current. Compared to previous-generation devices, the new series offers excellent clamping features with higher peak pulse surge current and lower clamping voltage for better input protection of IC devices.

- Series consists of 47 TVS with stand-off voltages from 5 V to 188 V
- Designed to protect sensitive electronics against voltage transients induced by inductive load switching and lightning

### The Key Specifications:

PN	Breakdown voltage (V)		Stand-off Voltage (V)	Max Ipp at 10/1000 $\mu\text{s}$ (A)	Max Vc at Ipp and 10/1000 $\mu\text{s}$ (V)
	Min	Max			
SMBJ5.0D	6.50	6.97	5.0	65.9	9.1
SMBJ6.0D	6.77	7.27	6.0	58.9	10.2
SMBJ6.5D	7.33	7.87	6.5	54.5	11.0
SMBJ7.0D	7.90	8.48	7.0	50.8	11.8
SMBJ7.5D	8.46	9.08	7.5	47.2	12.7
SMBJ8.0D	9.03	9.69	8.0	44.8	13.4
SMBJ8.5D	9.57	10.3	8.5	42.2	14.3



# New Product Info



Product Group: Vishay General Semiconductor, Diodes / July 2015

SMBJ9.0D	10.2	10.9	9.0	39.7	15.1
SMBJ10D	11.3	12.1	10	35.9	16.7
SMBJ11D	12.4	13.3	11	33.5	17.9
SMBJ12D	13.5	14.5	12	30.6	19.6
SMBJ13D	14.6	15.7	13	28.3	21.2
SMBJ14D	15.8	17.0	14	26.2	22.9
SMBJ15D	17.0	18.2	15	25.0	24.0
SMBJ16D	18.1	19.4	16	23.4	25.6
SMBJ17D	19.2	20.6	17	22.1	27.2
SMBJ18D	20.3	21.8	18	20.8	28.8
SMBJ20D	22.5	24.2	20	18.8	32.0
SMBJ22D	24.8	26.6	22	17.1	35.1
SMBJ24D	27.1	29.1	24	15.6	38.4
SMBJ26D	29.3	31.5	26	14.5	41.6
SMBJ28D	31.6	33.9	28	13.4	44.7
SMBJ30D	33.8	36.3	30	12.6	47.7
SMBJ33D	37.3	40.0	33	11.5	52.5
SMBJ36D	40.6	43.6	36	10.5	57.3
SMBJ40D	45.1	48.4	40	9.43	63.6
SMBJ43D	48.5	52.1	43	8.76	68.5
SMBJ45D	50.8	54.5	45	8.40	71.6
SMBJ48D	54.1	58.1	48	7.90	76.3
SMBJ51D	57.6	61.8	51	7.40	81.2
SMBJ54D	60.9	65.4	54	7.00	85.9
SMBJ58D	65.4	70.2	58	6.50	92.3
SMBJ60D	67.7	72.7	60	6.28	95.5
SMBJ64D	72.2	77.5	64	5.88	102
SMBJ70D	79.0	84.8	70	5.40	111
SMBJ75D	84.6	90.8	75	5.06	119
SMBJ78D	88.1	94.4	78	4.86	124
SMBJ85D	95.7	103	85	4.46	135
SMBJ90D	102	109	90	4.17	144
SMBJ100D	113	121	100	3.77	159
SMBJ110D	124	133	110	3.45	174
SMBJ120D	135	145	120	3.15	190
SMBJ130D	146	157	130	2.94	206
SMBJ150D	170	182	150	2.53	239
SMBJ160D	181	194	160	2.34	256
SMBJ170D	192	206	170	2.23	270
SMBJ188D	212	228	188	2.03	301

**Availability:** Samples and production quantities of the new SMBJXXD series are available now, with lead times of eight weeks for large orders.

To access the product datasheet on the Vishay Website, go to <http://www.vishay.com/ppg?87606> (SMBJ5.0D thru SMBJ188D)

## Contact Information:

**The Americas**  
[Diodes-Americas@vishay.com](mailto:Diodes-Americas@vishay.com)

**Europe**  
[Diodes-Europe@vishay.com](mailto:Diodes-Europe@vishay.com)

**Asia/Pacific**  
[Diodes-Asia@vishay.com](mailto:Diodes-Asia@vishay.com)