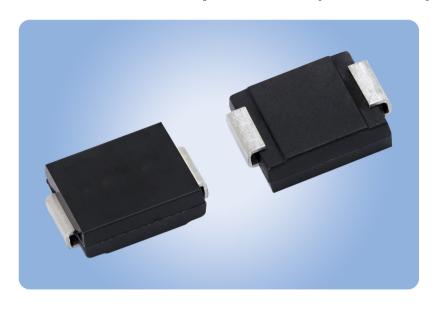




## TRANSZORB® Transient Voltage Suppressors

## TransZorb® Bidirectional TVS Offer High Surge Capability to 3 kW, Leakage Current Down to 1 µA in SMC (DO-214AB) Package



#### **KEY BENEFITS**

- High surge capability of 3 kW at 10/1000 µs
  Meets the specifications of ISO 16750-2 pulse b
- Low leakage current down to 1 μA from 22 V to 120 V
- Maximum clamping voltage from 17.0 V to 193 V at 10/1000 μs
- High temperature operation to +175 °C
- Extremely stable breakdown voltage from 11.1 V to 133 V across their entire operating temperature range

- 33 TVS part numbers with stand-off voltages from 10 V to 120 V
- Very fast response times
- Low incremental surge resistance
- Offered in SMC (DO-214AB) package
- AEC-Q101 qualified
- RoHS-compliant and halogen-free
- Moisture sensitivity level (MSL) of 1 in accordance with J-STD-020, LF maximum peak of 260 °C

#### **APPLICATIONS**

· Automotive load dump protection and signal line protection in industrial and telecom systems

#### **RESOURCES**

- Datasheet: SMC3K10CAHM3\_A thru SMC3K120CAHM3\_A www.vishay.com/ppg?98241
- For technical questions contact <u>DiodesAmericas@vishay.com</u>, <u>DiodesEurope@vishay.com</u>, <u>DiodesAsia@vishay.com</u>
- Material categorization: for definitions of compliance, please see <a href="https://www.vishay.com/doc?99912">www.vishay.com/doc?99912</a>





### TRANSZORB® Transient Voltage Suppressors

# TransZorb® Bidirectional TVS Offer High Surge Capability to 3 kW, Leakage Current Down to 1 µA in SMC (DO-214AB) Package

The surface-mount TransZorb® bidirectional transient voltage suppressors (TVS) offer high surge capability to 3 kW at 10/1000  $\mu$ s in the SMC (DO-214AB) package. The series provides low leakage current down to 1  $\mu$ A from 22 V to 120 V over a wide operating temperature range of -55 °C to +175 °C for automotive, industrial, and telecom applications.

Suitable for high reliability applications, the devices are available in AEC-Q101 qualified versions and offer extremely stable breakdown voltage from 11.1 V to 133 V across their entire operating temperature range. Designed to protect sensitive electronic equipment against voltage transients induced by inductive load switching and lightning, the devices are intended for automotive load dump protection and signal line protection in industrial and telecom systems.

DEVICE TYPE	BREAKDOWN VOLTAGE (V)		STAND-OFF VOLTAGE	MAXIMUM REVERSE LEAKAGE	MAXIMUM CLAMPING VOLTAGE V <sub>C</sub> (V) AT I <sub>PPM</sub> (10/1000 μs)	
	MIN.	MAX.	(V)	AT V <sub>WM</sub>	(V)	(A)
SMC3K10CAHM3_A	11.1	12.3	10	10	17	176
SMC3K12CAHM3_A	13.3	14.7	12	5	19.9	151
SMC3K13CAHM3_A	14.4	15.9	13	2	21.5	140
SMC3K14CAHM3_A	15.6	17.2	14	2	23.2	129
SMC3K15CAHM3_A	16.7	18.5	15	2	24.4	123
SMC3K16CAHM3_A	17.8	19.7	16	2	26	115
SMC3K17CAHM3_A	18.9	20.9	17	2	27.6	109
SMC3K18CAHM3_A	20	22.1	18	2	29.2	103
SMC3K20CAHM3_A	22.2	24.5	20	2	32.4	92.6
SMC3K22CAHM3_A	24.4	26.9	22	1	35.5	84.5
SMC3K24CAHM3_A	26.7	29.5	24	1	38.9	77.1
SMC3K26CAHM3_A	28.9	31.9	26	1	42.1	71.3
SMC3K28CAHM3_A	31.1	34.4	28	1	45.4	66.1
SMC3K30CAHM3_A	33.3	36.8	30	1	48.4	62
SMC3K33CAHM3_A	36.7	40.6	33	1	53.3	56.3
SMC3K36CAHM3_A	40	44.2	36	1	58.1	51.6
SMC3K40CAHM3_A	44.4	49.1	40	1	64.5	46.5
SMC3K43CAHM3_A	47.8	52.8	43	1	69.4	43.2
SMC3K45CAHM3_A	50	55.3	45	1	72.7	41.3
SMC3K48CAHM3_A	53.3	58.9	48	1	77.4	38.8
SMC3K51CAHM3_A	56.7	62.7	51	1	82.4	36.4
SMC3K54CAHM3_A	60	66.3	54	1	87.1	34.4
SMC3K58CAHM3_A	64.4	71.2	58	1	93.6	32.1
SMC3K60CAHM3_A	66.7	73.7	60	1	96.8	31
SMC3K64CAHM3_A	71.1	78.6	64	1	103	29.1
SMC3K70CAHM3_A	77.8	86	70	1	113	26.5
SMC3K75CAHM3_A	83.3	92.1	75	1	121	24.8
SMC3K78CAHM3_A	86.7	95.8	78	1	126	23.8
SMC3K85CAHM3_A	94.4	104	85	1	137	21.9
SMC3K90CAHM3_A	100	111	90	1	146	20.5
SMC3K100CAHM3_A	111	123	100	1	162	18.5
SMC3K110CAHM3_A	122	135	110	1	177	16.9
SMC3K120CAHM3_A	133	147	120	1	193	15.5