

semiconductors :: product :: **Transient Voltage Suppressor (TVS)**

Product: Transient Voltage Suppressor (TVS)

These devices able to absorb high levels of energy in short time pulses without damage, having a very fast response time (<1ps) and an excellent clamping factor are specially suited for protection purposes in application of Automotive, Consumer and Computer sectors.

FAGOR ELECTRONICA offers unidirectional and bidirectional TVS products covering the range from 400W to 5000W, assembled in both leaded and SMD packages.

Product	Family	I _{PP} (A)	V _{CL} (V)	V _Z (V)	P _{PP} (W)	DIREC	OUTLINE
P6SMB6V8CA	P6SMB-CA	57	10.5	6.8	600W	BIDIREC.	DO214AA/SMB

600 W Unidirectional and Bidirectional Surface Mounted Transient Voltage Suppressor Diodes

<p>Dimensions in mm.</p> <p>CASE: SMB/DO-214AA</p>	<p>Voltage 6.8 to 300 V</p> <p>Power 600 W / ms</p>
	<ul style="list-style-type: none"> • Glass passivated junction • Typical I_{RM} less than 1 μ A above 10V • Response time typically < 1ns • The plastic material carries UL 94 V-0 • Low profile package • Easy pick and place • High temperature soldering 260 °C 10 sec
	<p>MECHANICAL DATA</p> <p>Terminals: Solder plated, solderable per IEC 68-2-20. Standard Packaging: 8 mm. tape (EIA-RS-481). Weight: 0.093 g.</p>

Maximum Ratings and Electrical Characteristics at 25 °C

P_{PPM}	Peak Pulse Power Dissipation with 10/1000 μ s exponential pulse	600 W
I_{FSM}	Peak Forward Surge Current 8.3 ms. (Jedec Method) (Note 1)	100 A
V_F	Max. forward voltage drop at $I_F = 50$ A (Note 1)	3.5 V
$T_J - T_{STG}$	Operating Junction and Storage	- 65 to + 175 °C

Note 1: Only for Unidirectional

Type		Maximum Reverse Leakage Current		(1) Breakdown Voltage			I_R (mA)	Max. Clamping Voltage	
		I_{RM} (μA)	at V_{RM} (V)	V_{BR} (V)	at			V_{CL} (V)	at I_{pp} (A)
Bidirectional	Marking Code			Min.	Nom.	Max.			
P6SMB6V8C	PD	1000	5.50	6.12	6.8	7.48	10	10.8	56
P6SMB6V8CA	PE	1000	5.80	6.45	6.8	7.14	10	10.5	57
P6SMB7V5C	PF	500	6.05	6.75	7.5	8.25	10	11.7	51
P6SMB7V5CA	PG	500	6.40	7.13	7.5	7.88	10	11.3	53
P6SMB8V2C	PH	200	6.63	7.38	8.2	9.02	10	12.5	48
P6SMB8V2CA	PK	200	7.02	7.79	8.2	8.61	10	12.1	50
P6SMB9V1C	PL	50	7.37	8.19	9.1	10.0	1	13.8	44
P6SMB9V1CA	PM	50	7.78	8.65	9.1	9.55	1	13.4	45
P6SMB10C	PN	10	8.10	9.00	10	11.0	1	15.0	40
P6SMB10CA	PP	10	8.55	9.50	10	10.5	1	14.5	41
P6SMB11C	PQ	5	8.92	9.90	11	12.1	1	16.2	37
P6SMB11CA	PR	5	9.40	10.5	11	11.6	1	15.6	38
P6SMB12C	PS	5	9.72	10.8	12	13.2	1	17.3	35
P6SMB12CA	PT	5	10.2	11.4	12	12.6	1	16.7	36
P6SMB13C	PU	5	10.5	11.7	13	14.3	1	19.0	32
P6SMB13CA	PV	5	11.1	12.4	13	13.7	1	18.2	33
P6SMB15C	PW	5	12.1	13.5	15	16.5	1	22.0	27
P6SMB15CA	PX	5	12.8	14.3	15	15.8	1	21.2	28
P6SMB16C	PY	5	12.9	14.4	16	17.6	1	23.5	26
P6SMB16CA	PZ	5	13.6	15.2	16	16.8	1	22.5	27
P6SMB18C	QD	5	14.5	16.2	18	19.8	1	26.5	23
P6SMB18CA	QE	5	15.3	17.1	18	18.9	1	25.5	24
P6SMB20C	QF	5	16.2	18.0	20	22.0	1	29.1	21
P6SMB20CA	QG	5	17.1	19.0	20	21.0	1	27.7	22
P6SMB22C	QH	5	17.8	19.8	22	24.2	1	31.9	19
P6SMB22CA	QK	5	18.8	20.9	22	23.1	1	30.6	20
P6SMB24C	QL	5	19.4	21.6	24	26.4	1	34.7	17
P6SMB24CA	QM	5	20.5	22.8	24	25.2	1	33.2	18
P6SMB27C	QN	5	21.8	24.3	27	29.7	1	39.1	15
P6SMB27CA	QP	5	23.1	25.7	27	28.4	1	37.5	16
P6SMB30C	QQ	5	24.3	27.0	30	33.0	1	43.5	14
P6SMB30CA	QR	5	25.6	28.5	30	31.5	1	41.4	14.4
P6SMB33C	QS	5	26.8	29.7	33	36.3	1	47.7	12.6
P6SMB33CA	QT	5	28.2	31.4	33	34.7	1	45.7	13.2
P6SMB36C	QU	5	29.1	32.4	36	39.6	1	52.0	11.6
P6SMB36CA	QV	5	30.8	34.2	36	37.8	1	49.9	12
P6SMB39C	QW	5	31.6	35.1	39	42.9	1	56.4	10.6
P6SMB39CA	QX	5	33.3	37.1	39	41.0	1	53.9	11.2

(1) Tested with pulses.
Pulse test: $t_p \leq 50$ ms; $\delta < 2\%$