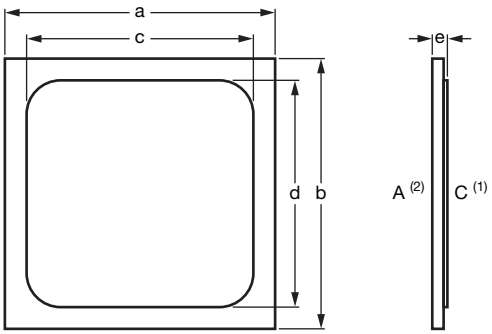
TV210L027S6PV

Vishay General Semiconductor

PAR® Transient Voltage Suppressor Bare Die



FEATURES

- Junction passivation optimized design passivated anisotropic rectifier technology
- 6600 W peak pulse power capability with a 10/1000 µs waveform in equivalent package
- Unidirectional polarity only

CIRCUIT DIAGRAM

Notes

(1) Front metallization side: Cathode
(2) Back metallization side: Anode

MECHANICAL DATA

DEVICE (1)	ASSEMBLY	DIMENSIONS in inches (millimeters)						TYPICAL TOTAL METAL THICKNESS			
		CHIP SIZE		SOLDERABLE		CHIP THICKNESS		FRONT SIDE C		BACK SIDE A	
		a, b		c, d		e		METAL	THICKNESS	METAL	THICKNESS
		min.	max.	min.	max.	min.	max.				
TV210L027S6PV	Solderable	0.208 (5.283)	0.210 (5.334)	0.196 (4.978)	0.198 (5.029)	0.011 (0.279)	0.013 (0.330)	Ni/Au	0.75 µm	Ni/Au	0.75 µm

Note

(1) Refer to Device Code definition

ELECTRICAL CHARACTERISTICS (T_A = 25 °C unless otherwise noted)

DEVICE	BREAKDOWN VOLTAGE V_{BR} (1) AT I_T (V)		TEST CURRENT I_T (mA)	STAND-OFF VOLTAGE V_{WM} (V)	MAXIMUM REVERSE LEAKAGE AT V_{WM} I_D (µA)	FINISH GOOD (for reference not guarantee for bare die)			
						MAXIMUM CLAMPING VOLTAGE (2) V_C AT I_{PPM}		OPERATING JUNCTION TEMPERATURE RANGE	PACKAGE EQUIVALENT PRODUCT (3)
	MIN.	MAX.				(V)	(A)		
TV210L027S6PV	24	30	10	22	1.0	40	75	- 55 °C to + 175 °C	SM8A27

Notes

(1) Pulse test: $t_p \leq 50$ ms
(2) Non-repetitive peak reverse surge current for 10 µs/10 ms exponentially decaying waveform, per fig. 1
(3) Package equivalent product quality level information will provide per customer request but only for reference no guarantee bare die can meet the same

PACKAGING

DEVICE	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY
TV210L027S6PV	V	12 mm tape/8 mm pitch, 7" diameter plastic tape and reel	3000

For technical questions within your region, please contact one of the following:
DiodesAmericas@vishay.com, DiodesAsia@vishay.com, DiodesEurope@vishay.com

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CHARACTERISTICS CURVES

(T_A = 25 °C unless otherwise noted)

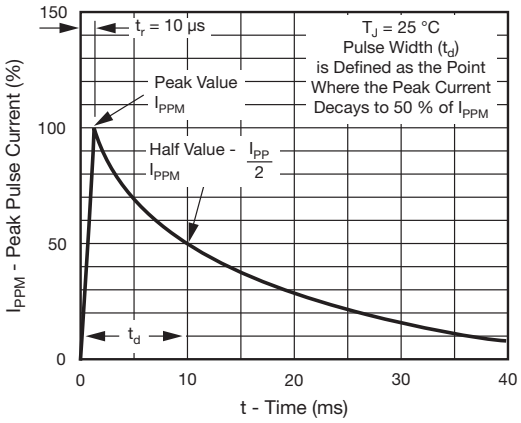

Fig. 1 - Pulse Waveform

DEVICE CODE

TV	210	L	027	S	6	P	V
1	2	3	4	5	6	7	8

1 - Transient Voltage Suppressor

2 - Die dimensions in mils

3 - Patented PAR TVS — B = Named as breakdown voltage (V_{BR}); T = Named as stand-off voltage (V_{WM}); L = Load dump rectifier

4 - Breakdown voltage (V_{BR})

5 - Chip surface metallization (see Mechanical Data table) — A = Bondable; S = Solderable

6 - Wafer diameter in inches — 4 = 4" wafer; 6 = 6" wafer

7 - Quality level code — P = Packaged die, high reliability grade (1); O = Packaged die, commercial grade (1); N = Non packaged die (2)

8 - Packaging (see Packaging table)

Notes

(1) Packaged die
- Existing die in qualified package

(2) Non packaged die
- Existing fab. process
- Non standard die metal
- Die metal has been qualified
- No production in packaged form

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DiodesAmericas@vishay.com, DiodesAsia@vishay.com, DiodesEurope@vishay.com

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