

TPK07KPXX TVS Rectifier

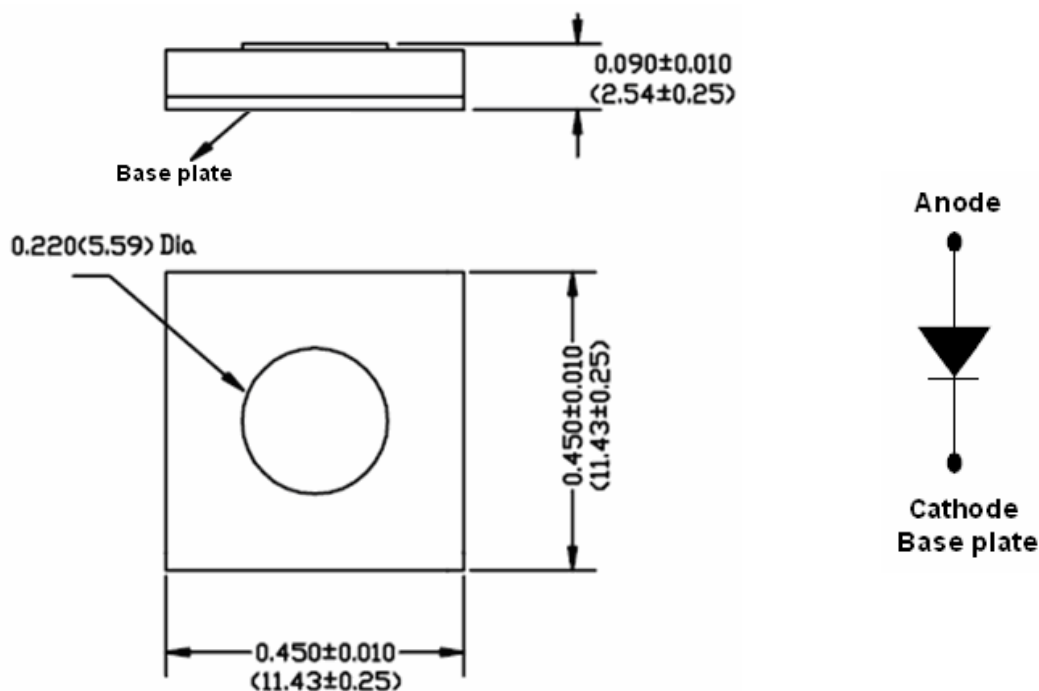
Applications:

- Protection from switching transients and induced RF

Features:

- Low profile surface mount
- Unidirectional
- Fast response
- Suppresses transients up to 7000W @ 10/1000 μ s
- Marking : body marked with TPK07KPXXX
- This is a Pb – Free Device
- Open top for heat dissipation and different connection options
- All SMC parts are traceable to the wafer lot
- All part are 100% tested: electrical, 1x surge test, visual inspection
- Additional testing can be offered upon request

Mechanical Dimensions: In Inches(mm)



SPD-3



Maximum Ratings @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +175	$^{\circ}\text{C}$
Thermal Resistance Junction to Case	$R_{\theta JC}$	0.9	$^{\circ}\text{C/W}$
Peak Pulse Power (with 10/1000 μs waveform)	P_{PPM}	7000	W
Forward Surge Current (8.3 ms single half sine-wave)	I_{FSM}	700	A
Power dissipation on infinite heatsink	P_D	8.0	W

Electrical Characteristics @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

Part Number	Nom. Stand-off Voltage V_{wm} (V)	Breakdown Voltage $V_{BR}@ I_T$ (V)		Test Current I_T (mA)	Max. Clamping Voltage $V_c(10/1000\mu\text{s}) @ I_{PP}$ (V)	Max. Reverse Leakage Current $I_R @ V_{wm}$ (μA)	Peak Pulse Current I_{pp} @10/1000 μs Waveform (A)
		Min.	Max.				
TPK07KP10	10	11.1	13.6	5	18.8	15	372
TPK07KP10A	10	11.1	12.3	5	17.0	15	412
TPK07KP11	11	12.2	14.9	5	20.1	10	348
TPK07KP11A	11	12.2	13.5	5	18.2	10	385
TPK07KP12	12	13.3	16.3	5	22.0	10	318
TPK07KP12A	12	13.3	14.7	5	19.9	10	352
TPK07KP13	13	14.4	17.6	5	23.8	10	294
TPK07KP13A	13	14.4	15.9	5	21.5	10	326
TPK07KP14	14	15.6	19.1	5	25.8	10	271
TPK07KP14A	14	15.6	17.2	5	23.2	10	302
TPK07KP15	15	16.7	20.4	5	26.9	10	260
TPK07KP15A	15	16.7	18.5	5	24.4	10	287
TPK07KP16	16	17.8	21.8	5	28.8	10	243
TPK07KP16A	16	17.8	19.7	5	26.0	10	269
TPK07KP17	17	18.9	23.1	5	30.5	10	230
TPK07KP17A	17	18.9	20.9	5	27.6	10	254
TPK07KP18	18	20.0	24.4	5	32.2	10	217
TPK07KP18A	18	20.0	22.1	5	29.2	10	240
TPK07KP20	20	22.2	27.1	5	35.8	10	196
TPK07KP20A	20	22.2	24.5	5	32.4	10	216
TPK07KP22	22	24.4	29.8	5	39.4	10	178
TPK07KP22A	22	24.4	26.9	5	35.5	10	197
TPK07KP24	24	26.7	32.6	5	43.0	10	163
TPK07KP24A	24	26.7	29.5	5	38.9	10	180



Technical Data
Data Sheet N1508, Rev. A

Green Products

Part Number	Nom. Stand-off Voltage V_{wm} (V)	Breakdown Voltage $V_{BR}@ I_T$ (V)		Test Current I_T (mA)	Max. Clamping Voltage $V_c(10/1000\mu s)$ @ I_{PP} (V)	Max. Reverse Leakage Current $I_R @ V_{wm}$ (μA)	Peak Pulse Current I_{pp} @10/1000 μs Waveform (A)
		Min.	Max.				
TPK07KP26	26	28.9	35.3	5	46.6	10	150
TPK07KP26A	26	28.9	31.9	5	42.1	10	166
TPK07KP28	28	31.1	38.0	5	50.1	10	140
TPK07KP28A	28	31.1	34.4	5	45.4	10	154
TPK07KP30	30	33.3	40.7	5	53.5	10	131
TPK07KP30A	30	33.3	36.8	5	48.4	10	145
TPK07KP33	33	36.7	44.9	5	59.0	10	119
TPK07KP33A	33	36.7	40.6	5	53.3	10	131
TPK07KP36	36	40.0	48.9	5	64.3	10	109
TPK07KP36A	36	40.0	44.2	5	58.1	10	120
TPK07KP40	40	44.4	54.3	5	71.4	10	98
TPK07KP40A	40	44.4	49.1	5	64.5	10	108.5
TPK07KP43	43	47.8	58.4	5	76.7	10	91.3
TPK07KP43A	43	47.8	52.8	5	69.4	10	100.9
TPK07KP45	45	50	61.1	5	80.3	10	87.2
TPK07KP45A	45	50	55.3	5	72.7	10	96.3
TPK07KP48	48	53.3	65.1	5	85.5	10	81.9
TPK07KP48A	48	53.3	58.9	5	77.4	10	90.4

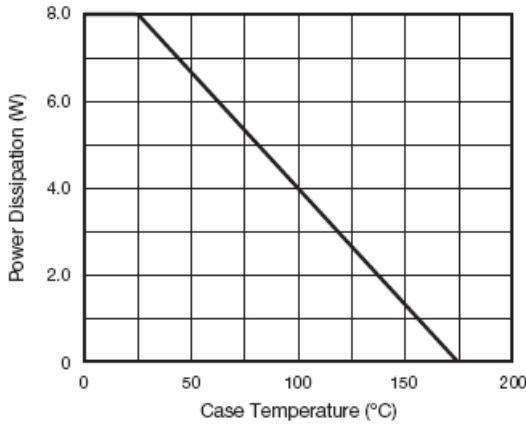


Fig. 1 - Power Derating Curve

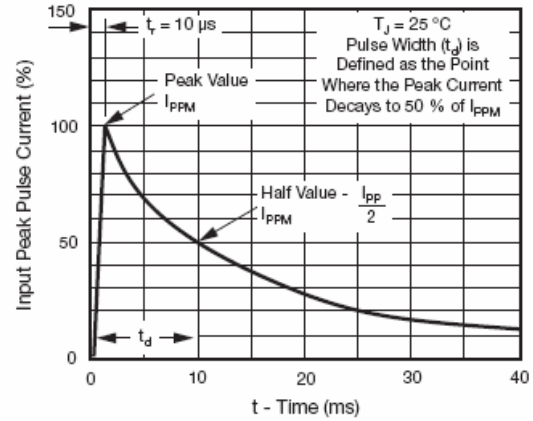


Fig. 3 - Pulse Waveform

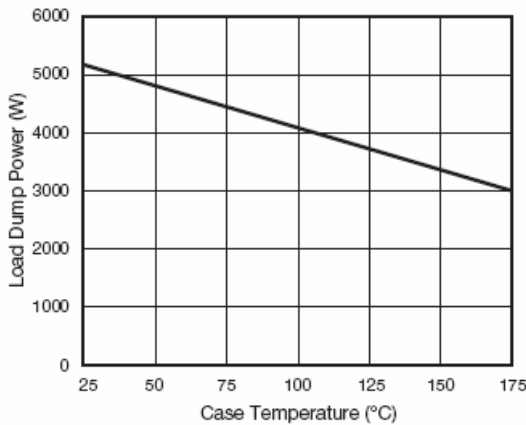


Fig. 2 - Load Dump Power Characteristics
(10 ms Exponential Waveform)

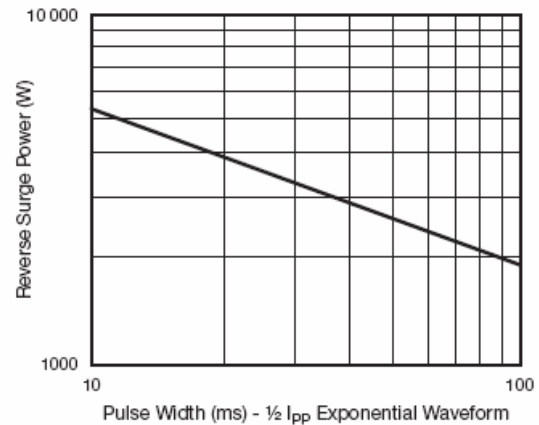


Fig. 4 - Reverse Power Capability

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