



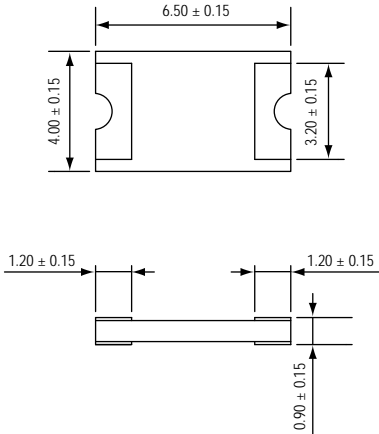
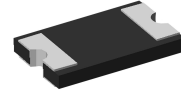
# 1.5SMPC SERIES

## High power density 1.5KW TVS

Reverse Voltage - 11 to 150 Volts

Peak Pulse Power- 1500 Watts

A3PS-C



\*Dimensions in millimeters

CoolTc™

### FEATURES

- \* Halogen-free type
- \* Compliance to RoHS product
- \* World's First 1.5KW TVS in TO-277A equivalent package
- \* Pad layout compatible with SMC for easy drop-in replacement
- \* Glass passivated chip
- \* 1500 W peak pulse power capability with a 10/1000  $\mu$ s waveform, repetitive rate (duty cycle) : 0.01%
- \* Low leakage
- \* Lowest profile 1mm
- \* Excellent clamping capability
- \* Very fast response time

### MECHANICAL DATA

**Case :** A3PS-C

**Terminals :** Solder plated, solderable per MIL-STD-750, Method 2026

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

*Ratings at 25°C ambient temperature unless otherwise specified.  
single phase, half wave, 60Hz resistive or inductive load.  
for capacitive load, derate current by 20%*

RATING	SYMBOL	VALUE	UNITS
Peak power dissipation with a 10/1000 $\mu$ s waveform	PPPM	1500	Watts
Peak pulse current with a 10/1000 $\mu$ s waveform	IPPM	See next table	Amps
Power dissipation on infinite heatsink at $T_L = 75$	P <sub>D</sub>	6.5	Watts
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	

PART NUMBER	Marking Code	Working Peak Reverse Voltage V <sub>RWM</sub> (V)	Breakdown Voltage V <sub>BR</sub> @I <sub>T</sub>			Maximum Clamping Voltage V <sub>C</sub> (V) @ I <sub>PP</sub>	Maximum Reverse Surge Current I <sub>PP</sub> (A) @10 / 1000 μs sinewave	Maximum Reverse Leakage I <sub>R</sub> (μA) @V <sub>RWM</sub>
			Min. (V)	Max. (V)	I <sub>T</sub> (mA)			
1.5SMPC11CAH	1.5C 11CA•	11	12.2	13.5	1	18.2	82.4	5
1.5SMPC12CAH	1.5C 12CA•	12	13.3	14.7	1	19.9	75.4	5
1.5SMPC13CAH	1.5C 13CA•	13	14.4	15.9	1	21.5	69.8	1
1.5SMPC14CAH	1.5C 14CA•	14	15.6	17.2	1	23.2	64.7	1
1.5SMPC15CAH	1.5C 15CA•	15	16.7	18.5	1	24.4	61.5	1
1.5SMPC16CAH	1.5C 16CA•	16	17.8	19.7	1	26.0	57.7	1
1.5SMPC17CAH	1.5C 17CA•	17	18.9	20.9	1	27.6	54.3	1
1.5SMPC18CAH	1.5C 18CA•	18	20.0	22.1	1	29.2	51.4	1
1.5SMPC20CAH	1.5C 20CA•	20	22.2	24.5	1	32.4	46.3	1
1.5SMPC22CAH	1.5C 22CA•	22	24.4	26.9	1	35.5	42.3	1
1.5SMPC24CAH	1.5C 24CA•	24	26.7	29.5	1	38.9	38.6	1
1.5SMPC26CAH	1.5C 26CA•	26	28.9	31.9	1	42.1	35.6	1
1.5SMPC28CAH	1.5C 28CA•	28	31.1	34.4	1	45.4	33.0	1
1.5SMPC30CAH	1.5C 30CA•	30	33.3	36.8	1	48.4	31.0	1
1.5SMPC33CAH	1.5C 33CA•	33	36.7	40.6	1	53.3	28.1	1
1.5SMPC36CAH	1.5C 36CA•	36	40.0	44.2	1	58.1	25.8	1
1.5SMPC40CAH	1.5C 40CA•	40	44.4	49.1	1	64.5	23.3	1
1.5SMPC43CAH	1.5C 43CA•	43	47.8	52.8	1	69.4	21.6	1
1.5SMPC45CAH	1.5C 45CA•	45	50.0	55.3	1	72.7	20.6	1
1.5SMPC48CAH	1.5C 48CA•	48	53.3	58.9	1	77.4	19.4	1
1.5SMPC51CAH	1.5C 51CA•	51	56.7	62.7	1	82.4	18.2	1
1.5SMPC54CAH	1.5C 54CA•	54	60.0	66.3	1	87.1	17.2	1
1.5SMPC58CAH	1.5C 58CA•	58	64.4	71.2	1	93.6	16.0	1
1.5SMPC60CAH	1.5C 60CA•	60	66.7	73.7	1	96.8	15.5	1
1.5SMPC64CAH	1.5C 64CA•	64	71.1	78.6	1	103	14.6	1
1.5SMPC70CAH	1.5C 70CA•	70	77.8	86.0	1	113	13.3	1
1.5SMPC75CAH	1.5C 75CA•	75	83.3	92.1	1	121	12.4	1
1.5SMPC78CAH	1.5C 78CA•	78	86.7	95.8	1	126	11.9	1
1.5SMPC85CAH	1.5C 85CA•	85	94.4	104	1	137	10.9	1
1.5SMPC90CAH	1.5C 90CA•	90	100	111	1	146	10.3	1
1.5SMPC100CAH	1.5C 100CA•	100	111	123	1	162	9.3	1
1.5SMPC110CAH	1.5C 110CA•	110	122	135	1	177	8.5	1
1.5SMPC120CAH	1.5C 120CA•	120	133	147	1	193	7.8	1
1.5SMPC130CAH	1.5C 130CA•	130	144	159	1	209	7.2	1
1.5SMPC140CAH	1.5C 140CA•	140	155	171	1	227	6.6	1
1.5SMPC150CAH	1.5C 150CA•	150	167	185	1	243	6.2	1

# RATINGS AND CHARACTERISTIC CURVES

FIG. 1- PULSE DERATING CURVE

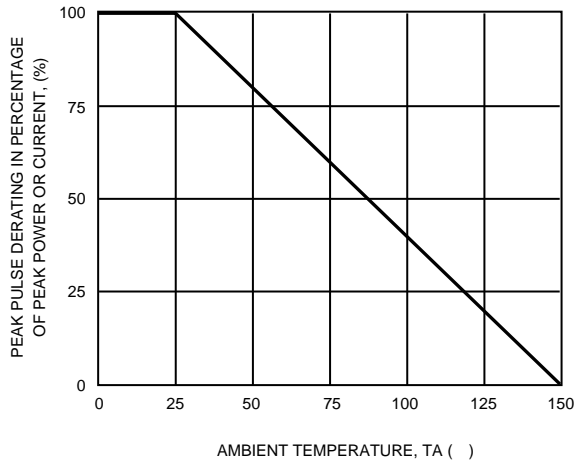


FIG. 2- STEADY STATE POWER DERATING CURVE

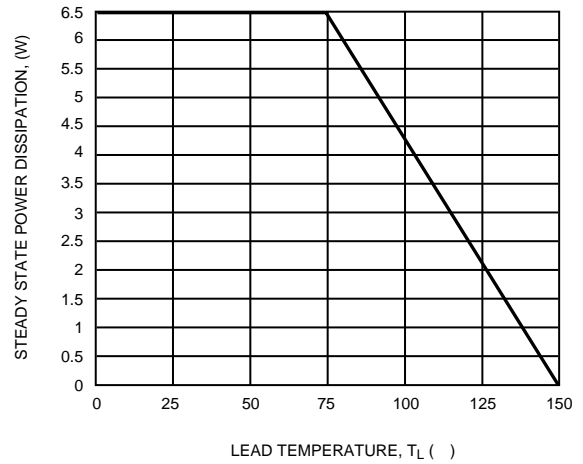


FIG. 3 - PEAK PULSE POWER RATING CURVE

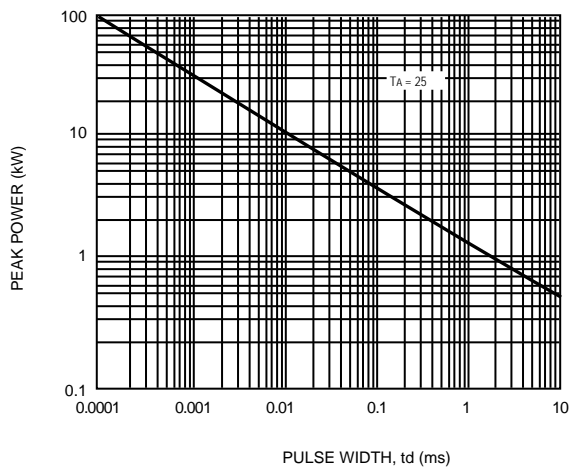


FIG. 4 - PULSE WAVEFORM

