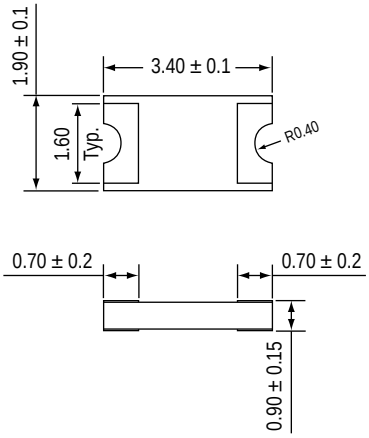
SMF4C SERIES

High power density 400W TVS

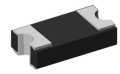
Reverse Voltage - 18 to 100 Volts *Peak Pulse Power - 400 Watts*

A1206



*Dimensions in millimeters

CoolTc™



FEATURES

* Halogen-free type
* Compliance to RoHS product
* Glass passivated chip
* 400W surge capability in SOD-123 equivalent package
* Occupy onle half the PCB area when compared to competitive TVS diodes in SMA packages
* 400W peak pulse power capability with a 10/1000 μs wavefrom, repetitive rate (duty cycle) : 0.01%
* Low leakage
* Excellent clamping capability
* Very fast response time

MECHANICAL DATA

Case : A1206

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 μs waveform	P_{PPM}	400	Watts
Peak pulse current with a 10/1000 μs waveform	I_{PPM}	See next table	Amps
Power dissipation on infinite heatsink at T_L = 75℃	P_D	3.3	Watts
Operating junction and storage temperature range	T_J,T_{STG}	-55 to +150	℃

SMF4C SERIES

PART NUMBER	Marking Code	Working Peak Reverse Voltage V_{RWM} (V)	Breakdown Voltage V_{BR} @I_T			Maximum Clamping Voltage V_C (V) @ I_{PP}	Maximum Reverse Surge Current I_{PP} (A) @10 / 1000 μs sinewave	Maximum Reverse Leakage I_R (μA) @V_{RWM}
BI-POLAR			Min. (V)	Max. (V)	I_T (mA)			
SMF4C18CAH	CA• 18	18	20.0	22.1	1	29.2	13.70	1
SMF4C20CAH	CA• 20	20	22.2	24.5	1	32.4	12.35	1
SMF4C22CAH	CA• 22	22	24.4	26.9	1	35.5	11.27	1
SMF4C24CAH	CA• 24	24	26.7	29.5	1	38.9	10.28	1
SMF4C26CAH	CA• 26	26	28.9	31.9	1	42.1	9.50	1
SMF4C28CAH	CA• 28	28	31.1	34.4	1	45.4	8.81	1
SMF4C30CAH	CA• 30	30	33.3	36.8	1	48.4	8.26	1
SMF4C33CAH	CA• 33	33	36.7	40.6	1	53.3	7.50	1
SMF4C36CAH	CA• 36	36	40.0	44.2	1	58.1	6.88	1
SMF4C40CAH	CA• 40	40	44.4	49.1	1	64.5	6.20	1
SMF4C43CAH	CA• 43	43	47.8	52.8	1	69.4	5.76	1
SMF4C45CAH	CA• 45	45	50.0	55.3	1	72.7	5.50	1
SMF4C48CAH	CA• 48	48	53.3	58.9	1	77.4	5.17	1
SMF4C51CAH	CA• 51	51	56.7	62.7	1	82.4	4.85	1
SMF4C54CAH	CA• 54	54	60.0	66.3	1	87.1	4.59	1
SMF4C58CAH	CA• 58	58	64.4	71.2	1	93.6	4.27	1
SMF4C60CAH	CA• 60	60	66.7	73.7	1	96.8	4.13	1
SMF4C64CAH	CA• 64	64	71.1	78.6	1	103	3.88	1
SMF4C70CAH	CA• 70	70	77.8	86.0	1	113	3.54	1
SMF4C75CAH	CA• 75	75	83.3	92.1	1	121	3.31	1
SMF4C78CAH	CA• 78	78	86.7	95.8	1	126	3.17	1
SMF4C85CAH	CA• 85	85	94.4	104	1	137	2.92	1
SMF4C90CAH	CA• 90	90	100	111	1	146	2.74	1
SMF4C100CAH	CA• 100	100	111	123	1	162	2.47	1

RATINGS AND CHARACTERISTIC CURVES

FIG. 1- PULSE DERATING CURVE

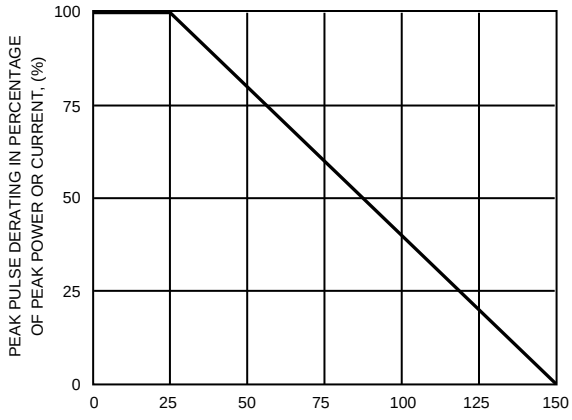


FIG. 2- STEADY STATE POWER DERATING CURVE

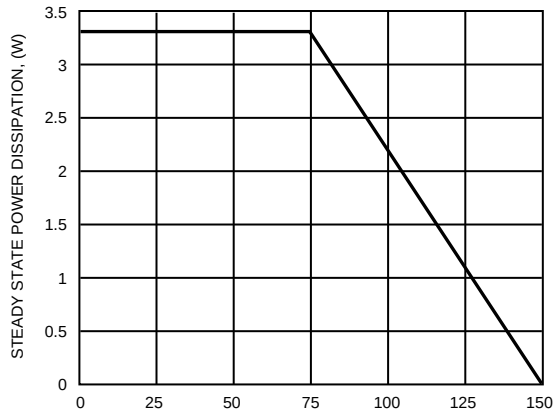


FIG. 3 - PEAK PULSE POWER RATING CURVE

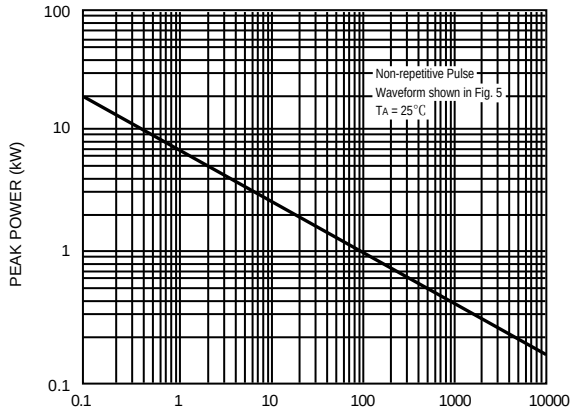


FIG. 4 - PULSE WAVEFORM

