

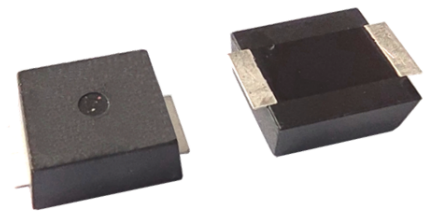
**CMS4032 Series**
**Descriptions**

The CMS4032 Series are manufactured with encapsulated cylindrical varistor elements as small SMD packages. The products are designed to suppress a variety of transient events, including those specified in IEC61000-4-2, IEC61000-4-5 and other standards used for Electromagnetic Compliance (EMC).

These devices feature high energy absorption capabilities, high working temperature (105°C) and also fast response thus low clamping voltages. These characteristics make the devices the best replacement of DIP-MOV in many applications, especially with space limits and SMT installation requirements.

**Features**

- Cylindrical varistor elements, encapsulated
- High energy absorption capability
- UL94V-0 flammability rating
- Excellent low leakage current <20μA
- Inherent Bi-directional Clamping
- SMD type Body size 4032
- Suitable for lead-free soldering
- RoHS compliant
- TUV Certificates: B180102653001


**Appearance**
**Order Information**

Size	Quantity	Reel Size
4032	1000	13 Inch

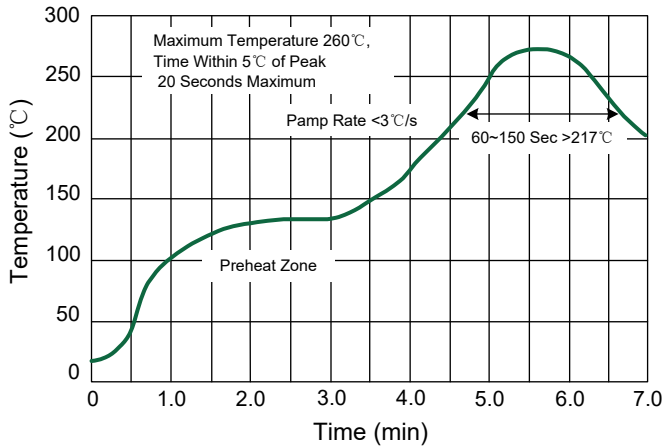
**General Technical Data**

Parameter	Value
Maximum RMS operating voltage	150...420 V
Maximum DC operating voltage	200...560 V
Maximum surge current (8/20μs)	1250, 1750 A
Maximum leakage current at V <sub>DC</sub>	20μA
Operating temperature range	-40°C to +105 °C
Storage temperature	-40°C to +125 °C

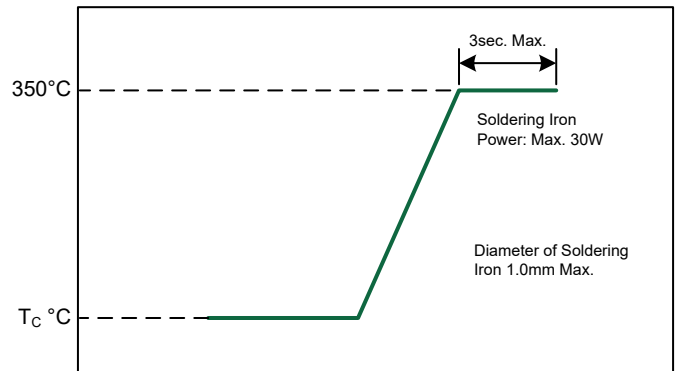
**Device Ratings and Specifications**

Part Number	Maximum Continuous Voltage (V)		Nominal Varistor Voltage @1mA (V) $V_N$	Clamping Voltage (Max. V) $V_c$	Class Current (Max. A) $8/20\mu s I_c$	Maximum Peak Current 8/20 $\mu s$ (A)		Energy (J) (2ms) 1 Time	Rated Power (mW)	TUV
	AC	DC				1 Time	15 Times			
CMS4032V241P102	150	200	240[216-264]	395	25	1200	700	10.1	250	●
CMS4032V271P102	175	225	270[243-297]	455	25	1200	700	11.3	250	●
CMS4032V391P102	250	320	390[351-429]	650	25	1200	700	16.4	250	●
CMS4032V431P102	275	350	430[387-473]	710	25	1200	700	18.1	250	●
CMS4032V471P102	300	385	470[423-517]	775	25	1200	700	19.7	250	●
CMS4032V511P801	320	418	510[459-561]	842	25	1200	700	21.4	250	●
CMS4032V561P801	350	460	560[504-616]	920	25	1200	700	23.5	250	●
CMS4032V621P801	385	505	620[558-682]	1025	25	1200	700	26.0	250	●
CMS4032V681P801	420	560	680[612-748]	1120	25	1200	700	28.6	250	●
CMS4032V241P102-E	150	200	240[216-264]	395	25	1750	1000	12.6	300	●
CMS4032V271P102-E	175	225	270[243-297]	455	25	1750	1000	14.2	300	●
CMS4032V391P102-E	250	320	390[351-429]	650	25	1750	1000	20.5	300	●
CMS4032V431P102-E	275	350	430[387-473]	710	25	1750	1000	22.6	300	●
CMS4032V471P102-E	300	385	470[423-517]	775	25	1750	1000	24.7	300	●
CMS4032V511P801-E	320	418	510[459-561]	842	25	1750	1000	26.8	300	●
CMS4032V561P801-E	350	460	560[504-616]	920	25	1750	1000	29.4	300	●
CMS4032V621P801-E	385	505	620[558-682]	1025	25	1750	1000	32.6	300	●
CMS4032V681P801-E	420	560	680[612-748]	1120	25	1750	1000	35.7	300	●

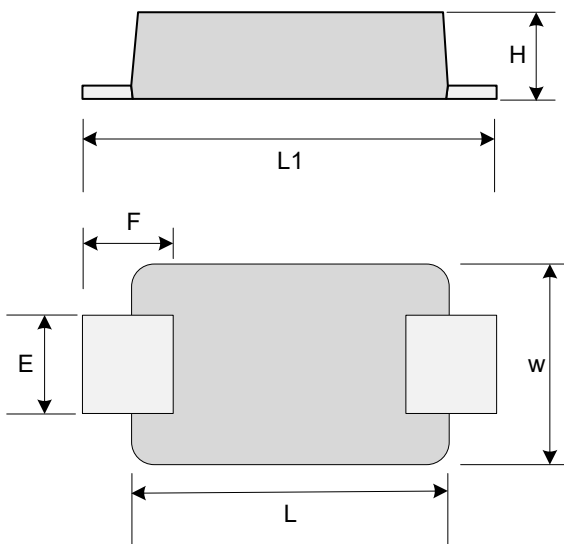
### Lead-free Re-flow Solder Profile



### Iron Soldering Profile



### Product Dimensions



Dimensions	4032	
	Inch	Millimeter
L	0.39±0.004	9.9±0.1
W	0.323±0.004	8.2±0.1
H	0.157±0.004	4.0±0.1
L1	0.469±0.004	11.9±0.1
E	0.197±0.004	5.0±0.1
F	0.067±0.004	1.7±0.1

### Storage

- Storage temperature range (packaging conditions):  $-10^{\circ}\text{C}\sim+40^{\circ}\text{C}$  RH 70% (Max.).
- The solderability of the external electrode may be deteriorated if packages are stored where they are exposed to high humidity. Package must be stored at  $40^{\circ}\text{C}$  or less and 70% RH or less.
- The solderability of the external electrode may be deteriorated if packages are stored where they are exposed to dust of harmful gas (e.g. HCl, sulfurous gas of  $\text{H}_2\text{S}$ ).
- Packaging material may be deformed if package are stored where they are exposed to heat of direct sunlight.
- Solderability shall be guaranteed for 12 months from the date of delivery on condition that they are stored at the environment specified in Clause 2. For those parts, which passed more than 12 months shall be checked solder-ability before use.

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Specifications are subject to change without notice.

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