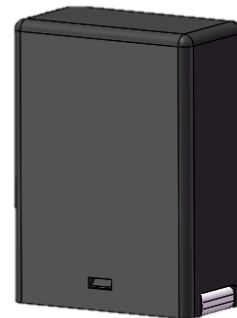
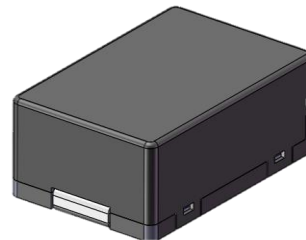
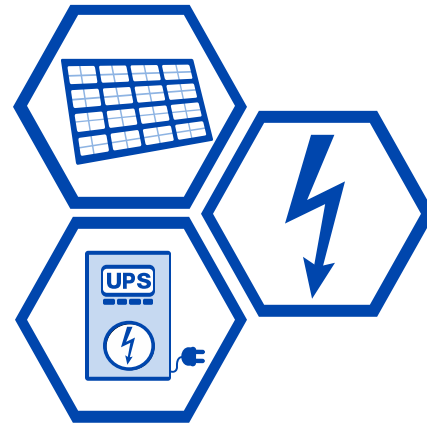


Attracting Tomorrow



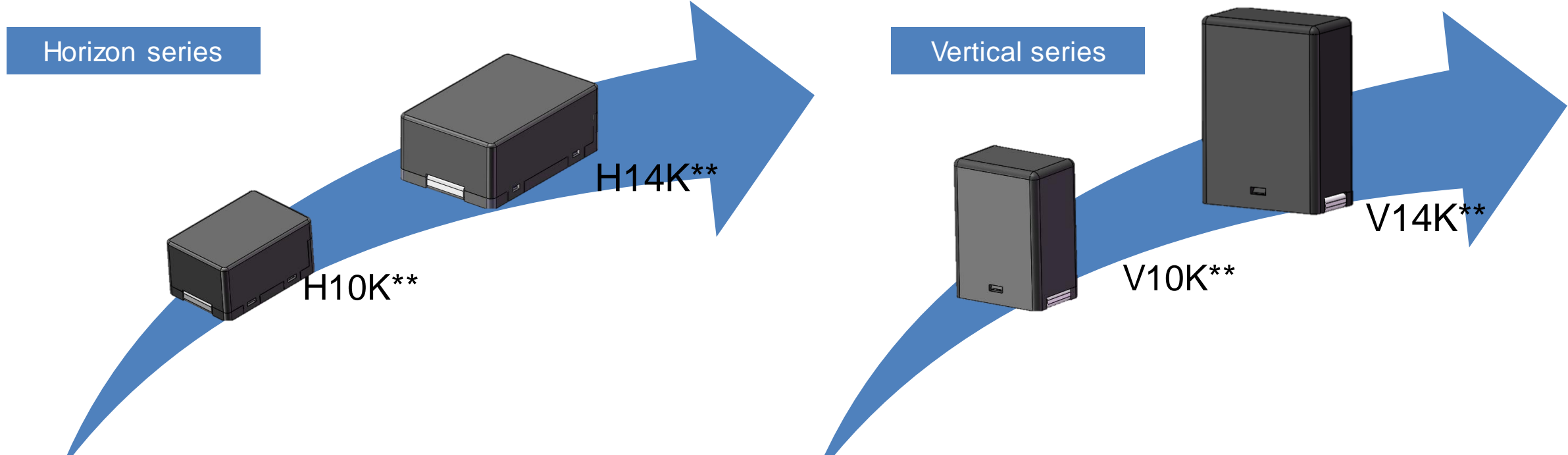
Housed varistors SMD series



TDK (Zhuhai FTZ) Co., Ltd.
Piezo & Protection Devices Business Group
Product Marketing Varistors
Zhuhai, China
2023

Development background

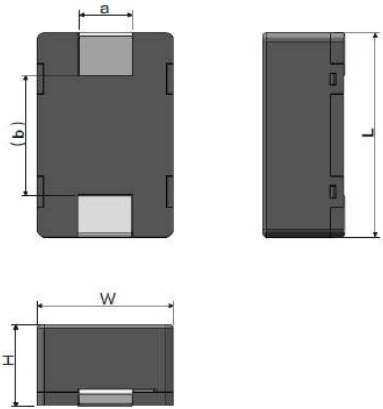
Development purpose: SMD technology will be widely used in customer processes



Product name description	
V(H)	SMD series H(V) Vertical version or horizontal version
*	Rated disk dimension
K	Tolerance of V_V at 1 mA $\pm 10\%$
*	Max. AC operating voltage
*	Typical design of customer

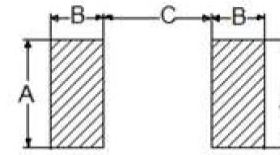
General technical data	
Climatic category	To IEC 60068-1 40/125/56
Operating temperature	To IEC 61051 -40 to +125 °C
Storage temperature	-40 to +150 °C
Electric strength	To IEC 61051 $\geq 2.5 \text{ kV}_{\text{RMS}}$
Insulation resistance	To IEC 61051 $\geq 100 \text{ M}\Omega$

H series: Dimensions & performance



Model	H ±0.5	W ±0.5	L ±0.5	A ±0.5
H10K**	11.0	15.0	22.0	7.0
H14K**	11.0	18.0	27.0	7.0

Unit: mm



Model	A	B	C	D
H10K**	10.0	7.5	9.0	23.0
H14K**	10.0	7.5	14.0	28.0

Unit: mm

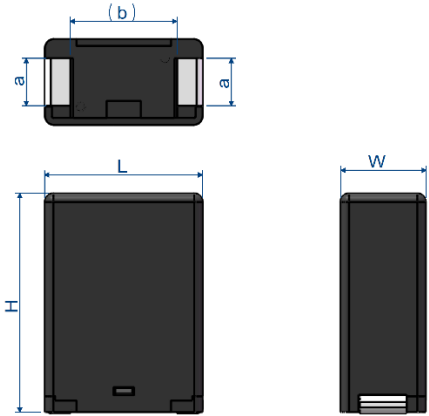
Electrical technical data at 125 °C

Type	V_{RMS} [V]	V_{DC} [V]	Surge current (8/20 μ s)		W_{max} [J] (2 ms)	P_{max} [W]
			I_{max} [A] 1 time	I_n [A]		
H10K**	175 ... 460	225 ... 615	6000	3000	80.0 ... 200.0	0.6
H14K**	175 ... 460	225 ... 615	10,000	5000	100.0 ... 270.0	0.8

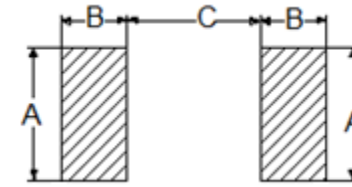
Electrical technical data at 25 °C

Type	V_V [V] (1 mA)	ΔV_V [%] (1 mA)	$V_{c,max}$ [V] (i_c)	I_c [A]
H10K**	270 ... 750	±10	455 ... 1240	35.0
H14K**	270 ... 750	±10	455 ... 1240	65.0

V series: Dimensions & performance



Model	L ±0.5	W ±0.5	H ±0.5	A ±0.5
V10K**	15.0	10.0	20.5	5.0
V14K**	18.5	10.0	25.5	5.0
Unit: mm				



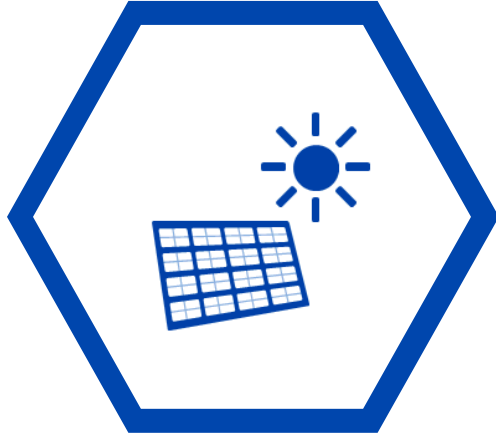
Model	A	B	C	D
V10K**	8.5	5.3	6.4	16.0
V14K**	8.5	5.5	9.9	19.0
Unit: mm				

Electrical technical data at 125 °C						
Type	V _{RMS} [V]	V _{DC} [V]	Surge current (8/20 μs)		W _{max} [J] (2 ms)	P _{max} [W]
			I _{max} [A] 1 time	I _n [A]		
V10K**	175 ~ 460	225 ~ 615	6000	3000	80.0 ~ 200.0	0.6
V14K**	175 ~ 460	225 ~ 615	10000	5000	100.0 ~ 270.0	0.8

Electrical technical data at 25 °C				
Type	V _V [V] (1 mA)	ΔV _V [%] (1 mA)	V _{c,max} [V] (i _c)	I _c [A]
V10K**	270~750	±10	455 ~1240	35.0
V14K**	270~750	±10	455 ~1240	65.0

New SMD varistor series: Applications

PV systems



Onboard chargers



Frequency converters



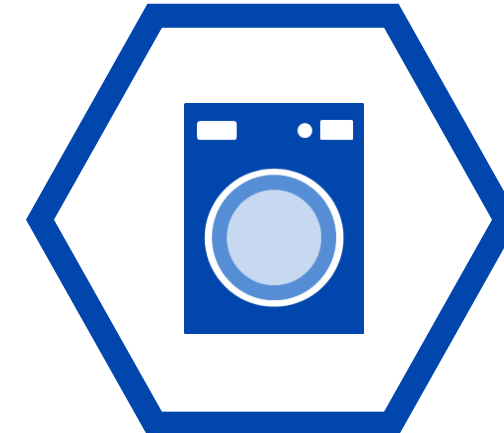
Power supplies



Telecommunication



Household





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