

### Surface Mount Type

Series: **ZA** Type: **V**

High temperature Lead-Free reflow



#### ■ Features

- Endurance: 5000 h at 105 °C
- Low ESR and High ripple current
- RoHS directive compliant

#### ■ Specifications

Category Temp. Range	-55 °C to +105 °C	
Rated W.V.Range	25 V.DC to 50 V.DC	
Nominal Cap.Range	22 μF to 56 μF	
Capacitance Tolerance	±20 % (120 Hz/+20 °C)	
DC Leakage Current	I ≤ 0.05 CV or 1000 (μA) After 2 minutes (whichever is greater)	
tan δ	Please see the attached Standard Products list	
Endurance	The capacitor shall be subjected to application of the D.C. voltage with full rated ripple current at +105 °C for 5000 hours. After stabilizing at room temperature(+15 to 35 °C), the capacitor shall not exceed the specified limits. (The sum of DC voltage and ripple peak voltage shall not exceed the rated voltage.)	
	Capacitance change	±30 % of initial measured value
	tan δ	≤ 200 % of initial specified value
	E. S. R.	≤ 200 % of initial specified value
	DC leakage current	≤ initial specified value
Shelf Life	After storage for 1000 hours at +105 °C±2 °C with no voltage applied and then being stabilized at +20 °C, capacitors shall meet the limits specified in Endurance. (With voltage treatment)	
Resistance to Soldering Heat	After reflow soldering and then being stabilized at +20 °C, capacitors shall meet the following limits.	
	Capacitance change	±10 % of initial measured value
	tan δ	≤ initial specified value
	DC leakage current	≤ initial specified value

#### ■ Frequency correction factor for ripple current

	Frequency (Hz)			
	120	1 k	10 k	100 k to
Correction factor	0.10	0.30	0.60	1.00

#### ■ Marking

Example: 25 V 56 μF Marking color : BLACK

E	25 V
V	35 V
H	50 V

#### ■ Dimensions in mm (not to scale)

Size code	D	L	A, B	H	I	W	P	K
D	6.3	5.8±0.3	6.6	7.8 max.	2.6	0.65±0.1	1.8	0.35 +0.15 / -0.20

(mm)

**NEW**

## ■ Standard Products

Endurance : 105 °C 5000 h

W.V. (V)	Cap. (±20 %) ( $\mu$ F)	Case size			Specification			Part No. (RoHS:compliant)	Reflow	Min. Packaging Q'ty
		Dia. (mm)	Length (mm)	Size Code	Ripple Current (100 kHz (+105 °C) (mA r.m.s.))	E.S.R. (100 kHz (+20 °C) (m $\Omega$ ))	tan $\delta$ (120 Hz (+20 °C))			Taping (pcs)
25	56	6.3	5.8	D	1300	80	0.14	EEHZA1E560P	(5)	1000
35	27	6.3	5.8	D	1300	80	0.12	EEHZA1V270P	(5)	1000
	47	6.3	5.8	D	1300	80	0.12	EEHZA1V470P	(5)	1000
50	22	6.3	5.8	D	1100	100	0.10	EEHZA1H220P	(5)	1000

The taping dimensions are explained on EE188 of our Catalog. Please use it as a reference guide.  
 Reflow Profile(Fig-5) listed on EE186 of our Catalog.