# Panasonic

## Surface Mount Type

Series: EN

Features

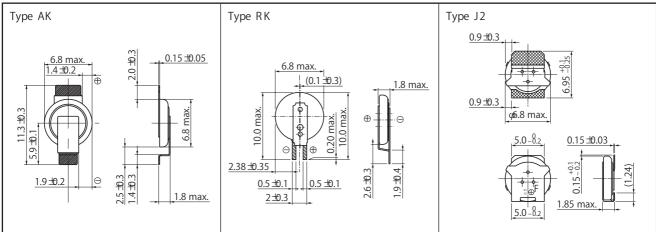
- ullet Re-flow soldering method available (250  $^\circ\,$  C)
- Miniaturized: Longer life and environmentally friendly
- RoHS directive compliant
- Recommended Applications
- Memory cards(power supply to hold memory), mobile phones, PDAs, digital cameras.

#### Specifications

Category Temp. Range	–10 °C to +60 °C					
Maximum Operating Voltage	3.3 V.DC					
Nominal Capacitance	0.2 F					
Maximum Operating Current	10 μA max.					
Characteristics at Low Temperature	Capacitance change	$\pm$ 30 % of initial measured value at +20 $^{\circ}$ C(at –10 $^{\circ}$ C)				
	Internal resistance	<10 times of initial measured value at +20 $^{\circ}$ ((at -10 $^{\circ}$ C)				
Endurance	After 500 hours application of 3.3 V. DC at +60 $^{\circ}$ C, the capacitor shall meet the following limits.					
	Capacitance change	$\pm$ 30 % of initial measured value				
	Internal resistance	4 k $\Omega$ or less				
Shelf Life	After 500 hours storage at +60°C without load, the capacitor shall meet the following limits.					
	Capacitance change	$\pm$ 30 % of initial measured value				
	Internal resistance	1 k ohm or less				

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### Dimensions in mm(not to scale)



#### Standard Products

Maximum Operating Voltage	Capacitance	Capacitance tolerance	Internal resistance (Initial specified value)	Mass	Part number	Min. Packaging Q'ty
(V.DČ)	(F)	(F)	( $\Omega$ ) at 1kHz	(g)		Reel (pcs)
3.3	0.2	0.16 to 0.36	< 200	0.2	EECEN0F204()	2000

The re-flow condition / taping dimensions are explained on EE210, EE211 of our Catalog.

Please use it as a reference guide.

(): Please use AK, RK or J2 to indicate terminal type.

Note : 1. When the capacitor is being used in a high temperature and high humidity environment for a long period, brown deposied materials might be found around the sealing area. However, the materials are insulators and will not affect any electrical characteristics of the capacitor.

2. Do not use reflow soldering when cell voltage is above 0.3 V.

(Unit : mm)

Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use. Should a safety concern arise regarding this product, please be sure to contact us immediately.