



## Not Recommended for New Design: EEF-SX Series SP-Cap Specialty Polymer Aluminum Capacitors

NRFND.PG92.01.24.2019

01.24.2019

<b>About This Notice:</b>	Due to the market requirement of Pb free soldering, Panasonic has developed parts that can be used at high reflow temperature (260°C). As Panasonic has compatible replacements and is working towards the standardization of the SP-Cap Series line-ups, the EEF-SX Series SP-Caps at 240°C are now Not Recommended for New Design.
<b>Features:</b>	
<b>Effective Date:</b>	Immediate
<b>Affected Parts and/or Replacements:</b>	See attached.
<b>Datasheet(s):</b>	See attached.
<b>Notes:</b>	

## Panasonic NRFND.PG92.01.24.2019 Affected Parts

EEF-SX0D181R  
 EEF-SX0D221R  
 EEF-SX0D271R  
 EEF-SX0D271XR  
 EEF-SX0D331R  
 EEF-SX0D331XR  
 EEF-SX0D391R  
 EEF-SX0D391XR  
 EEF-SX0D471R  
 EEF-SX0D471XR  
 EEF-SX0E151R  
 EEF-SX0E181R  
 EEF-SX0E221R  
 EEF-SX0E331R  
 EEF-SX0E331XR  
 EEF-SX0E391R  
 EEF-SX0E391XR  
 EEF-SX0G820R  
 EEF-SX0G101R

### Recommended Replacement Parts

Rated Rated Voltage (V)	Cap.  ( $\mu$ F) $\pm 20\%$ at 120Hz	Reflow: 240degC peak					Reflow: 260degC peak				
		Part number	tan $\delta$  max. at 120Hz	L.C.  ( $\mu$ A) max. at R.V. 2min	ESR  (m $\Omega$ ) max. at 100kHz	Ripple Current (A[rms]) max. at 100kHz	Part number	tan $\delta$  max. at 120Hz	L.C.  ( $\mu$ A) max. at R.V. 2min	ESR  (m $\Omega$ ) max. at 100kHz	Ripple Current (A[rms]) max. at 100kHz
2	180	EEF-SX0D181R	0.06	21.6	9	3.0	EEF-SX0D181ER	0.06	36.0	9	3.0
	220	EEF-SX0D221R	0.06	26.4	9	3.0	EEF-SX0D221ER	0.06	44.0	9	3.0
	270	EEF-SX0D271R	0.06	32.4	9	3.0	EEF-SX0D271ER	0.06	54.0	9	3.0
	270	EEF-SX0D271XR	0.06	32.4	6	3.5	EEF-SX0D271XE	0.06	54.0	6	3.5
	330	EEF-SX0D331R	0.06	39.6	9	3.0	EEF-SX0D331ER	0.06	66.0	9	3.0
	330	EEF-SX0D331XR	0.06	39.6	6	3.5	EEF-SX0D331XE	0.06	66.0	6	3.5
	390	EEF-SX0D391R	0.06	46.8	9	3.0	EEF-SX0D391ER	0.06	78.0	9	3.0
	390	EEF-SX0D391XR	0.06	46.8	6	3.5	EEF-SX0D391XE	0.06	78.0	6	3.5
	470	EEF-SX0D471R	0.06	56.4	9	3.0	EEF-SX0D471ER	0.06	94.0	9	3.0
	470	EEF-SX0D471XR	0.06	56.4	6	3.5	EEF-SX0D471XE	0.06	94.0	6	3.5

2.5	150	EEF-SX0E151R	0.06	22.5	9	3.0	EEF-SX0E151ER	0.06	37.5	9	3.0
	180	EEF-SX0E181R	0.06	27.0	9	3.0	EEF-SX0E181ER	0.06	45.0	9	3.0
	220	EEF-SX0E221R	0.06	33.0	9	3.0	EEF-SX0E221ER	0.06	55.0	9	3.0
	330	EEF-SX0E331R	0.06	49.5	9	3.0	EEF-SX0E331ER	0.06	82.5	9	3.0
	330	EEF-SX0E331XR	0.06	49.5	6	3.5	EEF-SX0E331XE	0.06	82.5	6	3.5
	390	EEF-SX0E391R	0.06	58.5	9	3.0	EEF-SX0E391ER	0.06	97.5	9	3.0
	390	EEF-SX0E391XR	0.06	58.5	6	3.5	EEF-SX0E391XE	0.06	97.5	6	3.5
4	82	EEF-SX0G820R	0.06	19.7	9	3.0	EEF-SX0G820ER	0.06	32.8	9	3.0
	100	EEF-SX0G101R	0.06	24.0	9	3.0	EEF-SX0G101ER	0.06	40.0	9	3.0