

# Thin Film Capacitor TFCP

薄膜コンデンサ TFCP

## Decoupling thin film capacitor in organic package for stabilizing of IC voltage

IC直下のデカップリングで電源を安定化

### Features

- High dielectric ( $\epsilon_r = \sim 1000$ ,  $10\text{nF}/\text{mm}^2$ ) thin film material  
高い誘電率を有する薄膜材料 ( $\epsilon_r = \sim 1000$ ,  $10\text{nF}/\text{mm}^2$ )
- Various type TFCP from discrete type and sheet capacitor with various shape electrode  
チップタイプの個片からシートを用いた任意の形状、電極パターンニングが可能
- Very low profile ( $\sim 50\mu\text{m}$ ) and flexible TFCP with Ni foil substrate  
支持基板がNi箔のため、薄型 ( $\sim 50\mu\text{m}$ ) でフレキシブル


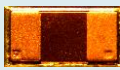
### Applications

- Embedded thin film capacitor  
基板埋め込み用コンデンサ
- Decoupling and stabilizing of electronic circuit board voltage  
ICのデカップリング、ボード電源の安定化

### Characteristics

Technology Roadmap of TFCP (Capacitance and Size)

TFCP開発状況 (静電容量、サイズ)

		Y2014	Y2015	Y2016	Y2017	Y2018
Sheet type 		10 $\text{nF}/\text{mm}^2$ *	30 $\text{nF}/\text{mm}^2$	50 $\text{nF}/\text{mm}^2$	100 $\text{nF}/\text{mm}^2$	150 $\text{nF}/\text{mm}^2$
Discrete Type 	1608	22nF	100nF	220nF	470nF	1uF
	1005	4.7nF	22nF	47nF	100nF	220nF
	0603	1nF	4.7nF	10nF	22nF	47nF

\* : 2016/7月から量産中

