

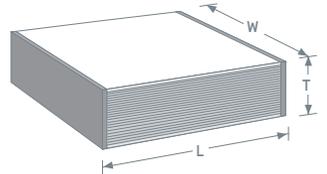
Capacitor Type

ST



ST2824/ST3827 CHIP STYLE

- Pb free machined terminations
- EIA Chip sizes
- Multilayer metallized polymer surface-mount chips
- Reflow solderable
- Made in U.S.A.



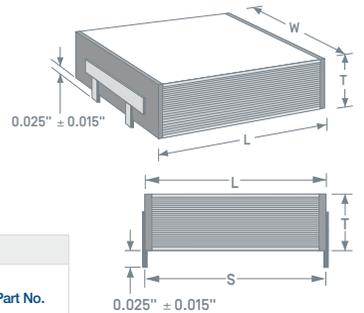
100 VDC / 80 VAC

Thickness	Value μF	L Max	TMax	W Max	Case	Part No.
105	1.0	0.280 - 0.305 (7.1 - 7.7)	0.175 (4.4)	0.256 (6.5)	ST2824	105K100ST2824T
225	2.2	0.380 - 0.405 (9.6 - 10.3)	0.200 (5.1)	0.286 (7.3)	ST3827	225K100ST3827T

ST3/ST4

Lead-Frame Style

Lead-Frame Pins			
Thickness	0.010"	$\pm 0.005^{\circ}$	
Width	0.020"	$\pm 0.005^{\circ}$	
Pitch	0.100"	$\pm 0.015^{\circ}$	
Height	0.025"	$\pm 0.015^{\circ}$	
# of Pins	2		

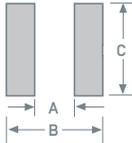


100 VDC / 80 VAC

PF Code	Value μF	L Max	TMax	W Max	Case	Part No.
105	1.0	0.280 - 0.310 (7.1 - 7.9)	0.175 (4.4)	0.256 (6.5)	ST3	105K100ST3T
225	2.2	0.380 - 0.410 (9.6 - 10.4)	0.200 (5.1)	0.286 (7.3)	ST4	225K100ST4T

Dimensions in inches, metric (mm) in parenthesis.
RoHS-6 product does not contain any of the six RoHS banned materials (Hg, CrVI, Cd, PBB, PBDE and Pb) in levels exceeding the industry defined limits

RoHS-6 Compliant



Recommended Pad Sizes (inches)

Case Code	A	B	C
ST2824/ST3	0.210	0.365	0.275
ST3827/ST4	0.310	0.465	0.305

Surfilm® Capacitors Type ST Performance Characteristics

Electrical	
Capacitance Range	1.0 & 2.2µF @1KHz
Voltage Range	100 VDC
Tolerance	±10% (K)
Dissipation Factor	≤1.0% @ 1KHz
Insulation Resistance	≥ 1K MegOhms x µF, measured after 1 minute of electrification at 10 VDC
Dielectric Strength	1.3 x Rated Voltage
Temperature Coef.	+6.0% from -55°C to 85°C (typical)
Dielectric Absorption	0.30% (typical)
Self Inductance	6.0nH (typical) ST2824/ST3 9.0nH (typical) ST3827/ST4

Physical	
Construction	Non-inductively constructed with metallized polyester dielectric (polyethylene terephthalate). Parallel plate-multilayer polymer (MLP) design. Electrode: Aluminum metallization
ST2824/ST3827	Chip Style Tin-based solderable surface
ST3/ST4	Lead-Frame Style Tin Cu Alloy Lead-Frame, "I" lead configuration for SMD butt joint mounting
Enclosure	Self-encased
Marking	Parts are not marked. Capacitance code, tolerance and rated voltage are printed on container.
Temperature Range	-55°C to 125°C, derate voltage 1.25% / °C above 85°C
Packaging	Tape/Reel. Units dry packed with desiccant in moisture barrier bag. IPC/JEDEC-J-STD-20 moisture sensitivity level: MSL 4
Quantity per reel	
ST2824	1200
ST3827	850
ST3	800
ST4	700

Solder Attachment		
	Yes	No
Conductive Reflow	✓	
Convection Reflow	✓	
IR Reflow	✓	
Soldering Iron (220°C)	✓	
Wave Solder		✓
See Soldering Guidelines Spec. for details.		

Performance	
Accelerated DC Voltage Life Test:	
Test Conditions	Temperature 85°C ±5°C Applied Voltage 1.25 x Rated Voltage Test Duration 1000 hours
Performance Requirements	Capacitance delta of ≤ 5.0% Dissipation Factor ≤ 1.00% Insulation Resistance > 50% of specification
Humidity:	
Test conditions	Temperature 85°C ± 5°C Applied Voltage Zero voltage Humidity 85% Test Duration 21 days
Performance Requirements	Capacitance delta of ≤ 7.0% Dissipation Factor ≤ 1.00% Insulation Resistance ≥ 50% of specification
Solderability (Convection Reflow):	
Test Conditions	Solder Temperature 220°C +0°C, -10°C Test Duration 30 seconds ±1
Performance Requirements	Capacitance delta of ≤ 5.0%
Terminal Adhesion:	0.5 Kg through hole in substrate, centered. Solder fillets ≥ 1/3 T, 5 seconds with no damage.
Long Term Stability:	≤ 2.0% over two years at a temperature of between 0°C and 35°C and a RH of between 35% and 65%.

