

ATC 116 SERIES MAX-K™ SLCs

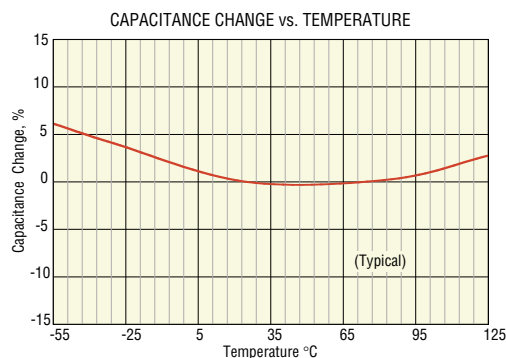
ATC's 116 Series MAX-K™ single layer capacitors provide the highest capacitance per unit area with a stable X7R temperature coefficient of capacitance ($\pm 15\%$).

Features

- X7R Dielectric $\pm 15\%$ (-55 °C to +125 °C)
- Capacitance Range 150 to 10,000 pF
- Dielectric Constant 25,000 typ.

Specifications

- DF $\leq 2\%$, $Q \geq 50$, measured at 1 MHz for $C \leq 1000$ pF; 1 KHz for $C > 1000$ pF
- Insulation Resistance: 10^4 M Ω (typ.)
- Working Voltage: 25 WVDC / 50 WVDC
- Aging Rate: less than 3% per decade hour
- Bond Strength and Die Shear: MIL-STD-883



Selection Guide

Case Size	R	T	U	X	Y	Z
Dimensions (L&W nom.)	.015 (.381) $\pm .005$ (.127)	.025 (.635) $\pm .005$ (.127)	.035 (.889) $\pm .005$ (.127)	.050 (1.27) $\pm .010$ (.254)	.070 (1.78) $\pm .010$ (.254)	.090 (2.29) $\pm .010$ (.254)
25 V Thickness (T)	.005 (.127) $\pm .001$ (.0254)	.005 (.127) $\pm .001$ (.0254)	.005 (.127) $\pm .001$ (.0254)	.005 (.127) $\pm .001$ (.0254)	.005 (.127) $\pm .001$ (.0254)	.005 (.127) $\pm .001$ (.0254)
50 V Thickness (T)	.007 (.178) $\pm .001$ (.0254)	.007 (.178) $\pm .001$ (.0254)	.007 (.178) $\pm .001$ (.0254)	.007 (.178) $\pm .001$ (.0254)	.007 (.178) $\pm .001$ (.0254)	.007 (.178) $\pm .001$ (.0254)
Cap (pF) Cap Code						
150 151	116RM151*050TT					
220 221	116RM221*050TT					
270 271	116RM271*025TT					
330 331	116RM331*025TT					
390 391		116TM391*050TT				
470 471		116TM471*050TT				
560 561		116TM561*050TT				
680 681		116TM681*025TT				
750 751		116TM751*025TT				
820 821		116TM821*025TT	116UM821*050TT			
1000 102			116UM102*050TT			
1200 122			116UM122*025TT			
1500 152			116UM152*025TT	116XM152*050TT		
1800 182				116XM182*050TT		
2200 222				116XM222*050TT		
2700 272				116XM272*025TT		
3300 332				116XM332*025TT	116YM332*050TT	
3900 392					116YM392*050TT	
4700 472					116YM472*050TT	
5600 562					116YM562*025TT	
6200 622					116YM622*025TT	116ZM622*050TT
6800 682					116YM682*025TT	116ZM682*050TT
7500 752						116ZM752*050TT
8200 822						116ZM822*025TT
10000 103						116ZM103*025TT

*Available in K, M and Z tolerances

Inches (mm)

Prototype quantities available in 1 week. Custom sizes available upon request.

ATC Part Number Code

116 R M 15 1 K 050 TT

ATC Series _____

Case Size _____

Dielectric Style: _____

Capacitance Code: First 2 significant digits for capacitance. R=Decimal Point _____

Indicates number of zeros following digits of capacitance in picofarads except for decimal values. _____

Termination Code: Thin Film Gold (standard) Titanium Tungsten/Nickel/Gold (100- μ inches Gold Finish minimum.) Contact ATC for alternate termination styles. _____

WVDC (in Volts): 3 significant digits, 25 Volts / 50 Volts _____

Capacitance Tolerance (see table below) _____

Capacitance Tolerances			
Code	K (%)	M (%)	Z (%)
Tol.	± 10	± 20	± 80 , -20%

The above part number refers to a 116 series, case size R, M dielectric, 150 pF, with a capacitance tolerance of K (± 10 pF), 50 WVDC, with thin film gold termination. ATC accepts orders for our parts using designations with or without the "ATC" prefix. Both methods of defining the part number are equivalent, i.e., part numbers referenced with the "ATC" prefix are interchangeable to parts referenced without the "ATC" prefix. Customers are free to use either in specifying or procuring parts from American Technical Ceramics.

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w w w . a t c e r a m i c s . c o m