

# ELECTRICAL SPECIFICATION

RoHS

Safety Standard Recognized Ceramic Capacitor

**Capacitance Range:** 100PF to 10000PF  
Test at 1.0±0.2V RMS +25°C and 1KHZ

**Capacitance Tolerance:**  
K: ±10%  
M: ±20%

**Working Voltage:**  
UL,CUL: 250VAC  
VDE, ENEC: 400VAC, 250VAC

**Dielectric Strength:**  
2600VAC For 60 Seconds

**Dissipation Factor:**  
B(Y5P),E(Y5U): 2.5% max., test at 1.0±0.2VRMS,25°C at 1KHZ.  
F(Y5V): 5.0% max., test at 1.0±0.2VRMS,25°C at 1KHZ.

**Insulation Resistance:**  
10,000 Megohms min at 500VDC

## Temperature Characteristics:

T.C.	Cap. Change	Temp. Range
B (Y5P)	±10%	-25°C to +85°C
E (Y5U)	+22-56%	-25°C to +85°C
F (Y5V)	+22-82%	-25°C to +85°C

## Humidity Test:

Capacitance Change	T.C.	Capacitance Change	Capacitors shall be subjected to a temperature of 40±2°C and relative humidity between 90-95% for 500±12 hours. And maintained at normal temperature and humidity for a period of 4-24 hours.
	Y5P	10% max	
	Y5U	20% max	
	Y5V	30% max	
D.F.	T.C.	Dissipation Factor:	
	Y5P	5.0% max	
	Y5U	5.0% max	
	Y5V	7.5% max	

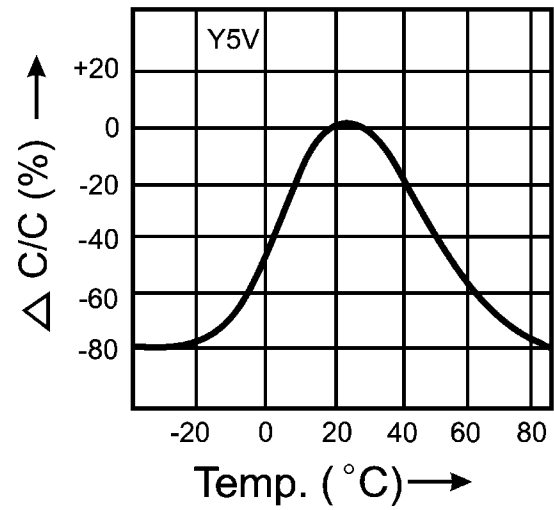
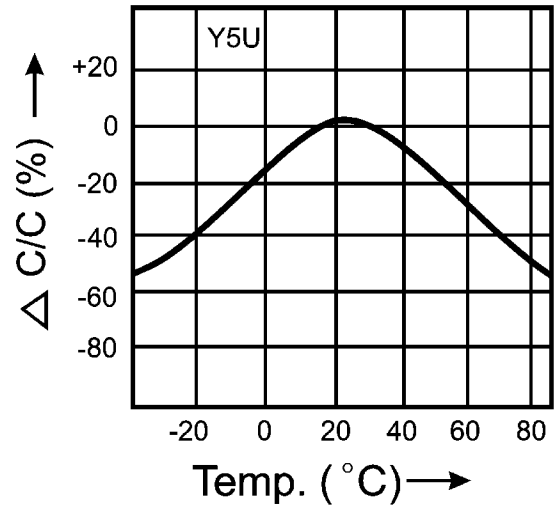
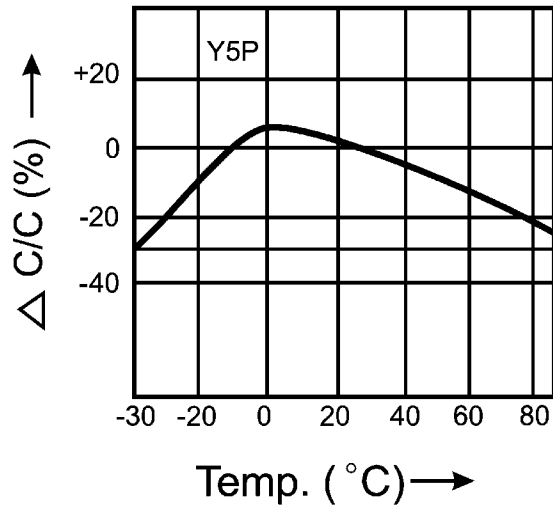
**RohS:**

**Conform with RoHS 2002/95/EC.**

---

# TEMPERATURE DEPENDENCY OF CAPACITANCE

RoHS



**APPROVAL STANDARD AND FILE NO.****RoHS**

Agencies	Standard No.	Recognized File No.	Class & W.V.	Capacitance Values	Region
UL	UL1414	E189495	250Vac	101-103	USA
CUL	UL1414	E189495	250Vac	101-103	Canada
VDE	DIN EN 60384-14: 2006-04 (VDE 0565 Teil 1-1) EN 60384-14:2005-08 IEC 60384-14 (ED.3)	40021868	X1:400Vac Y2:250Vac	101-103	Germany
ENEC	EN 60384-14:2005-08 IEC 60384-14 (ED.3)	40021868	X1:400Vac Y2:250Vac	101-103	Europe

### Parts Number System


<b>E</b>	<b>B</b>	<b>101</b>	<b>K</b>	<b>2V</b>	<b>7</b>	<b>L</b>	<b>1</b>	<b>K</b>
<b>1)</b>	<b>2)</b>	<b>3)</b>	<b>4)</b>	<b>5)</b>	<b>6)</b>	<b>7)</b>	<b>8)</b>	<b>9)</b>

- |   |   |
|---|---|
| <p><b>1) Coating:</b> E: Epoxy Coating</p>  | <p><b>6) Lead Space:</b> 5= 5.0mm<br/>7= 7.5mm<br/>9= 9.5mm</p>                                 |
| <p><b>2) Temp. Char.:</b> B= Y5P<br/>E= Y5U<br/>F= Y5V</p>  | <p><b>7) Lead length:</b> L= 25mm<br/>M= 10mm<br/>S= 5mm<br/>T= Taping Reel<br/>A= AMMO BOX</p> |
| <p><b>3) Capacitance:</b> 101=10x10=100PF<br/>102=10x100=1,000PF<br/>103=10x1000<br/>= 10,000PF</p> | <p><b>8) Lead Style:</b> 1= Straight type<br/>4= Outside kink type<br/>7= Inside kink type</p>  |
| <p><b>4) Tolerance:</b> K= ±10%<br/>M= ±20%</p>   | <p><b>9) Mark</b> K= Standard Marking</p>   |
| <p><b>5) Rated Voltage:</b> 2T= Y2 250VAC<br/>2V= X1 400VAC</p>                                     |   |

## MARKING

RoHS



 : The mark of Manufacturer.

472 : Capacitance ,EX. 472=47x100=4700(PF)

M : Capacitance Tolerance , EX. M= $\pm$ 20%

81 : Date Code

8: Last digit of ERA

1: Month Jan, Feb, Mar..... Sep=1,2,3.....9

Oct= O

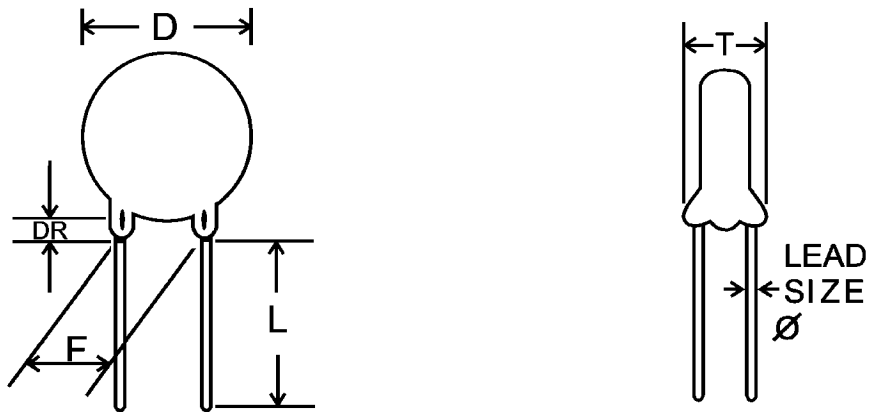
Nov= N

Dec= D

SY : Type Designation

# PRODUCT SPECIFICATIONS

RoHS



R.V.	CAP.	TOL. %	T.C.	D. Max. mm	F. ±1.0mm	L. mm	DR mm.	L.S. ±0.05 mm	T. mm
250V 400V	101K	±10	Y5P	7	7.5	< 32	<3.5	0.6	< 7
	151K	±10	Y5P	7	7.5				
	221K	±10	Y5P	7	7.5				
	331K	±10	Y5P	7	7.5				
	471K	±10	Y5P	8	7.5				
	681K	±10	Y5P	9	7.5				
	681M	±20	Y5U	8	7.5				
	102M	±20	Y5U / Y5V	8 / 6	7.5				
	152M	±20	Y5U / Y5V	9 / 7	7.5				
	222M	±20	Y5U / Y5V	10 / 8	7.5				
	332M	±20	Y5U / Y5V	12 / 10	7.5 / 9.5				
	472M	±20	Y5U / Y5V	14 / 11	7.5 / 9.5				
103M	±20	Y5V	17	7.5 / 9.5					