







DATA SHEET

Y1 AC Ceramic Capacitor 250VAC

Serie: 122001

Mat. Code B Material: B= Y5P

Voltage Code 251 Voltage: 251= 250VAC

Range Code 331 Range: 331= 330pf

Y1 AC Ceramic Capacitor 250VAC

Serie No.: **I22001**

Customer:

DRW: Jason **CHKD** Wilson MATL: Wilson TOLERANCE Mason DATE 01.11.2010 APPD: Schumi **FINISH** Sheet No. 1 from 13 Jamv









Technical Specifications

Temperature Characteristics Y5P and Y5U Capacitance Change of Temperature Y5P = $\pm 10\%$

Coeffizient $Y5U = \pm 20\% \sim -55\%$ Temperature Range: $-25^{\circ}\text{C} \sim +85^{\circ}\text{C}$

Capacitance Tolerance: $K= \pm 10\%$ $M= \pm 20\%$

Nominal Capacitance Code (Example) Capacitance (pf)

 Code
 Capaci

 101
 100

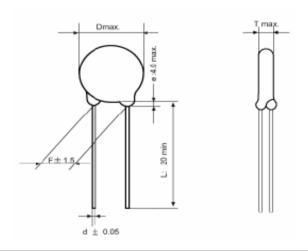
 102
 1000

 222
 2200

 103
 10000

Nominal capacitance shall consist of three numbers in the unit of picofard(pf). The frist and the second numbers mean the signifibant figures and the third number shall presendt the number of zeros flowing the significant figures.

Lead Style Informations



Lead Code Style (A) (mm)

Pitch Code	Α	В	С	D	Е	
F	2,5	5,0	7,5	10	12,5	
L	only 20mm long lead					
d		0,5 or	0,6 or 0),8mm		
е		ma	ax. 4,0n	nm		

Y1 AC Ceramic Capacitor 250VAC

Part No.: **|22001**

Customer:

MATL: DRW: CHKD Wilson Wilson Mason 01.11.2010 Jason **TOLERANCE** DATE APPD: Schumi FINISH Sheet No. 2 from 13 Jamy



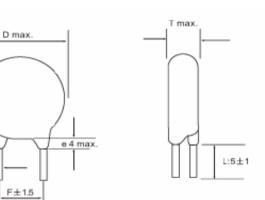
 $d \pm 0.05$



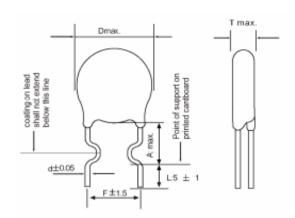




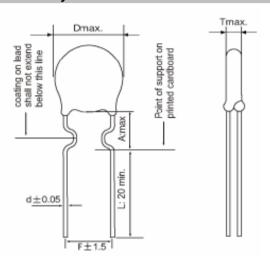
Lead Style Informations



Lead Style Informations



Lead Style Informations



Lead Code Style (B) Unit (mm)

Pitch Code	Α	В	С	D	Е
F	2,5	5,0	7,5	10	12,5
L	5,0mm or on customer reque				
d		0,5 or	0,6 or 0),8mm	
е		ma	ax. 4,0n	nm	

Lead Code Style (C) Unit (mm)

Pitch Code		В	С	D	Е		
F		5,0	7,5	10	12,5		
Α		5,0	5,0	6,5	6,5		
L	5,0mm or on customer request						
d	0.5 or 0.6 or 0.8mm						

Lead Code Style (D) Unit (mm)

Pitch Code		В	С	D	Е		
F		5,0	7,5	10	12,5		
Α		5,0	5,0	6,5	6,5		
L	20mm min.						
d		0,5 or	0,6 or 0),8mm			

Y1 AC Ceramic Capacitor 250VAC

Part No.: **I22001**

Customer:

MATL: CHKD Wilson Mason DRW: Wilson TOLERANCE DATE 01.11.2010 Jason APPD: Schumi FINISH Sheet No. 3 from 13 Jamy



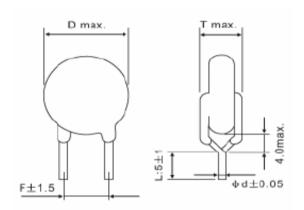


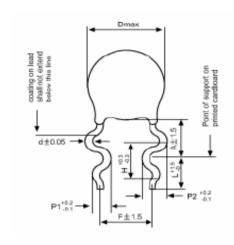




Lead Style Informations

Lead Style Informations





Lead Code Style (H) Unit (mm)

Lead Code Style (M) Unit (mm)

Pitch Code		В	С	D	Е	
F		5,0	7,5	10	12,5	
L	5,0mm or on customer request				quest	
d	0,5 or 0,6 or 0,8mm					
_					·	

Pitch Code		В	С	D	Е		
F		5,0	7,5	10	12,5		
Н		2,6	2,6	3,3	3,3		
P1		1,3	1,25	1,65	1,65		
P2		1,7	1,65	1,95	1,95		
Α	D<8	3: 6,0±	1,5, D>	8: 7,0±	: 1,5		
L	3,0 ~ 30mm						
d	0,5 or 0,6 or 0,8mm						

Y1 AC Ceramic Capacitor 250VAC

Part No.: **I22001**

Customer:

DRW:	Jason	CHKD	Wilson	MATL:	Wilson	TOLERANCE	Mason	DATE	01.11.2010
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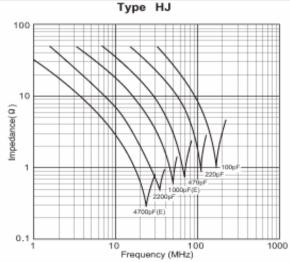


Specification and test method

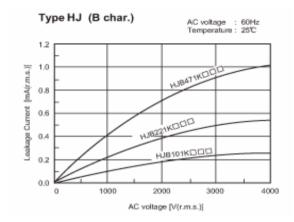
Operating Temperature range -25°C ~ +105°C But temperature range is -25% ~ +85°C at safety standard specification.

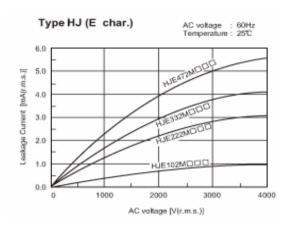
Test and measurement shall be made at the standard condition. (Temperature 15 ~ 35°C relative humidity 45 ~ 75% and athmospheric pressure 860~1060hpa). Unless otherwise specified herein it doubt accurated on the value of measurement, and remesuarement was requested by customer capacitor shall be measuremed at the reference condition (Temperature 20 ±2°C, relative humidity 60~70% and atmospheric pressure 860~1060hpa), unless otherwise specified herein.

Impedance vs. Frequency Characteristics

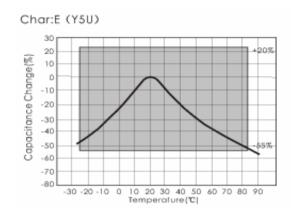


Leakage Current Characteristics

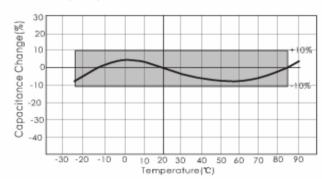




Capacitance Temperature Characteristics



Char: B(Y5P)



Y1 AC Ceramic Capacitor 250VAC

Part No.: 122001

Customer:

Wilson CHKD MATL: Mason 01.11.2010 Wilson **TOLERANCE** DATE **FINISH** Sheet No. 5 from 13 Jamy

Jason

Schumi

DRW:

APPD:









	Item		Specification			Testing Me	thod			Item		Specif	ication		Test	ing Method	
			<u> </u>									_				J	
	perance and		arked defect on app		eye	pacitor shall be irspes for visible evider	nce of defect.				Cha	r. Capaci	tance Change	The capacitance measurement shall be made of each step specified in table 3			
	Dimensions		specified range.	WILLIIII	Dimen	sions shall be mea					В	w	ithin ± 10%		Step	Temperature (°	,C)
			3,			calipers.				emperature	Е	withi	n + 20% -55%		1	.+ 20 ±2	
	Marking		To be easily legible	Э.	The cap	pacitor shall be irspected eyes	pected by nacked		Ch	aracteristics	Tanananatura ah		characteristics		3	25 ±2 .+ 20 ±2	
	apacitance	V	Vithin spefied tolera	nce	·								-25 to +85°C		4	.+ 85 ±2	
	apacitarice	V	Char. Specification		The	capacitance, dissi	pation shall be					guarantee is 20 to 100 C			5	.+ 20 ±2	
Discipa	ation Factor (D	_\	B= D,F= ≤ 2,5%		measur	ed at 25 ± 2°C wit	•	-						-	<u> </u>	.+ 20 ±2	
Dissipa	וווטוז רמכנטו (ט	「) ———	E= D,F= $\leq 2.5\%$			AC1 ± 0,1V (I	r.m.s)			Annoronoo		No marked defect.			figure, disc	harge in made 50 tin	mes at
			E= D,F=≤2,5%	0						Apperance		NO Mark	ea aerect.	5sec intervalls from the capacitor (Cd)			
Insulation	llation Resistance (R)		10000M Ω min.			he insulation resistance shall be measure with DC 500 ± 50V within 60 ±5sec. Of charging.				I.R.	1000M Ω min.			_ char	ged at DC vo	oltage of specified	7
	Between Le wires	ad	No failure			apacitor shall not b DV (r.m.s.) are app lead wires for	lied between the		Discharge test (1)					VsT ⊕ Cd Ct ₹R2			¥
Dielectric Strength	Body Insulat	on			First, the terminals of the capacitor shall be connected together. Then as shown in Figure right, a metal foil shall be closely wrapped around the body of the capacitor to the distance of about 3-4mm from each terminal. Then the capacitor shall be insetedinto a container filed with ballsof about				Discharg	Dielectric Strength	ner Item 6		Cd: (S: hi R1: R2: R3:	Eapacitor und 0,001μF gh voltage sv 1000Ω 1000MΩ Surge resista DC 10KV	witch		
						ameter. Finally AC (r.m.s.) is applied	$A \rightarrow$	-									
					for 60 capacit	Os between the or lead wires and netal balls.	Metal balls							Y		ramic Capac 50VAC	itor
		-		•			•	•						F	art No.:	122001	
	RW: PD:	Jason Schumi	CHKD	Wils	son	MATL: FINISH	Wilson Jamv	TOLER	ANCE	Mason		TE	01.11.2010 6 from 13	Cus	stomer:		
	. ט.	Schumi Finish Jamy		Jailiy			Sheet No. 6 from '			0 110111 13							

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Item			Specification			Testing Me	thod			Item	Spe	ecification	Testing	Method
														and D.F. are follows.
					_	layer of cheese claround the body of			Disc	harge Trest II		cloth around cpacitors ot glow or flame.		0,005μF 0,0051 to 5μF
					capacitor. Each sample is to be subjected to						shall flot glow of harrie.		Cap. Value CD 0,	005μF 0,05μF
						narges from a dum	p capacitor When discharged,						D.F of Cd. 0,5%	max. 0,5%max.
					placed E test. The discharg 60Hz po capacito	OC 5KV across the interval between pe is to be 5s. AC2 tential is to applied under test and is	e capacitor under successive 440V (r.m.s.)- d across the to be maintained		Solde	rability of leads	uniformly coated on the axial direction over 3/4 of the		The lead wire of capa into molten solder of 2 The depth of immersion 2,0mm from the root of	235 ± 5 °C for 2 ± 0.5 s. on is up to about 1.5 to
						opened in a short	charge, unless the er time by			Annoronoo	No	market defect		
					breakdo	wn of the capacito	r.The direct			Apperance	Within the	specified tolerance	The constitution of all C	
		The	cheese-cloth ar			supply is to be adju I in accordance wi			istance	Capacitance	Char.	Specification	The capacitor shall firmly be sold supporting lead wire and vibratic IO to 55Hz in the vibration freque	and vibration which is
Discharge Tre	Discharge Trest II		recitors shall not glow or flame.		Vdc= 5000(Cd+Ct) (V) Cd Vac Ct Ct Ct Ct Ct Ct Cd Vdc			Vibration Resistance	D, F.	B E	D,F, ≤ 2,5% D,F, ≤ 2,5%	1,5mm in total amplite the rate of vibration 55Hz and back to 10l of 6H; 2H each in 3 r	ude, and about 1min in change from 10Hz to Hz is applied for a total mutually perpendicular stions.	
					Vdc: Vai	raible direct-currer								
						oltage switch								
				L		e coil of appr. 3ml								
				}	r: Plug t	fuse rated 30A and	2 25UV	-						
					Vac.: su	pply source rated	240V 60Hz 30A							nic Capacitor
				ŀ	C1: Capacitor under test.			1					250	VAC
					Cd: Dump Capacitor		<u> </u>					Part No.:	122001	
DRW:	Jas	on	CHKD	Wils	son	MATL:	Wilson	TOLER	RANCE	Mason	DATE	01.11.2010	Customer:	
APPD:	Sch	umi				FINISH	Jamy			Shee	et No.	7 from 13	Cuotomor.	

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	Item	Specification	Testing Method
	Apperance	No marked defect	As in figure, the lead wires shall be immersed solder of 350 ± 10°C or 260 ±
	Capacitance change	Within ± 10%	5°C up to 1,5 ~ 2,0mm from the root of the terminal for 3,5 \pm 0,5s. (10 \pm 1s for 260 \pm 5°C).
	I.R. 1000M Ω min.	3 6).	
Soldering Effect	Dielectric Strength	Pre Item 6.	Pre-treatment: Capacitor shall be stored at 85 ± 2°C for 1h. Then placed at room conditions for 24 ± 2h before initial measurements. Post-treatment: Capacitor shall be stored for 1 to 2 h ar room conditions.

	Item		Specification	Testing Method			
(e)	Appearance		No marked defect.				
Stat	Compositorno	Cha	r. Capacitance Change				
\$	Capacitance Change	B within ± 10%					
rea	Onlange	Е	within ± 15%	Set the capacitor for 500 ± 12h at 40 ± 2°C			
r. Sz		Char.	Specification	in 90 ~ 95% relative humidity. Post-			
nde	D,F,	В	D.F. ≤ 5,0%	treatment: Capacitor shall be stored for 1 to			
<u> </u>		Е	D.F. ≤ 5,0%	2h at room condition.			
dity	I.R.		3000M Ω min.				
Humidity (Under Stready State)	Dielectric Strength		Per Item 6				
	Appearance		No marked defect.				
	Compoitance	Cha	r. Capacitance Change				
D _D	Capacitance Change	В	within ± 10%				
Humidity Loading	Onlange	Е	within ± 15%	Apply the rated voltage for 500 ± 12h at 40			
Ľ		Char.	Specification	± 2°C in 90 ~ 95% relative humidity. Post-			
dity	D,F,	В	D.F. ≤ 5,0%	treatment: Capacitor shall be stored for 1 to			
Ë		Е	D.F. ≤ 5,0%	2h at room condition.			
エ	I.R.		3000M Ω min.				
	Dielectric Strength		Per Item 6				

Y1 AC Ceramic Capacitor
250VAC

Part No.: **I22001**

Customer:

DRW:	Jason	CHKD	Wilson	MATL:	Wilson	TOLERANCE	Mason	DATE	01.11.2010
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	Item	Specification	Testing Method				
	Appearance	No marked defect.	Impulse Voltage				
	Capacitance Change	Within ± 20%	Each individual Capacity shal be subjected				
	I.R.	3000M Ω min.	to 8KV impulses for three times. After the capacitance are supplied to life test.				
	Dielectric Strength	Per Item 6.	100/%)				
Life			90 50 30 0 +T+ T2				
	Discharge Test (II)	Per Item 9.	Apply a voltage of table 4 for 1000h at 105 +2/0°C, and relative humidity of 50% max. (table 4)				
			Applied Voltage				
			AC 425V (r.m.s.). Except that once each hour the oltage is increased to AC 1000V (r.m.s.) for 0,1s.				
			Post-treatment: Cpapcitor shall be stared for 1 to 2h at room temperature.				

Item			Specifi	ication	Testing Method				
			The capacitor flan follows.	ne discontinue as	The Capacitor shall be subjected to applied flame for 15s and then removed for 15 s				
			Cycle Time		until 5 cycle.				
			1 to 4	30s max.	II Conneller				
	_	lame Test	5	60s. Max	19x Capacitor				
	riallie Test				Gas Burner (in mm)				
	Tensile		Lead wire shall		As a figure, fix the body of capacitor apply a				
	Robustness of Termination	Bending	not cut off. Capacitor shall noit be broken.	Mî	tensile weight gradually to each lead wire in the radila direction of capacitor up to 10N and keep it for 10± 1s.				
	Activ	e Flammability	The chees-cloth fir		Each lead wire shall be subjected to 5N weight and then a 90° bend, at the point of egress, in one direction, return to original position, and then a 90° bend in the opposite direction at the rate of one bend in 2 to 3s.				

Y1 AC Ceramic Capacitor							
250VAC							
Part No.:	122001						

DRW:	Jason	CHKD	Wilson	MATL:	Wilson	TOLERANCE	Mason	DATE	01.11.2010	Customor
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one but more than two complete layers of cheese- The cheese-cloth shall cloth. The capacitor shall be subjected to 20 not be on fire. one but more than two complete layers of cheese- burn discharges. The interval between successive flame i burn	capacitor under test shall be held in the me in the position which best promotes burning.Each specimen shall only be
discharges shall be 5s. The UAC shall be maintained for 2min after the last discharge. The burning time shall not be exceeded the time 30s. The tissuse paper shall not ignite. Length of	exposed once to the flame. Time of exposure to flame: 30s. gth of flame: 12± 1mm.
Gas bun Inside D Outside	bumer: Length 35mm min. de Dia: 0,5 ± 0,1mm- side Dia. 0,9mm max. : Butane gas Purity 95% min.
Active Flammability C1,2: 1µF ±10% C3: 0,033µ ± 5% 10KV Ct: 3µF ± 5% 10KV Cx: Capacitor under test F: Fuse rated 10A L1 to 4: 1.5mH + 20%	Test specimen Tissue About 10 mm ithak board
The chees-cloth shall not be on fire R: 1000 ±2% UAC: UR ±5% UR: Rated Voltage Ut: Voltage applied to Ct Y1 A	1 AC Ceramic Capacitor 250VAC
Time Part	Part No.: I22001
DRW: Jason CHKD Wilson MATL: Wilson TOLERANCE Mason DATE 01.11.2010 APPD: Schumi FINISH Jamy Sheet No. 10 from 13	stomer:

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111	1								
	Item	Sp	ecification	Testing Method					
	Appearance	Noı	marked defect	The capacitor shall be subjected to 5 temperature					
	Oit	Char. Capaci.Change			acitor snail be sub then consecutively	•	•		
	Capacitance Change	В	B Within ± 10%		inen conscounver	10 2 111111	iciolori oyolco.		
	Onlange	Е	Within ± 20%		Tempera	ture cycle	Э		
				Step	Temperature	(°C)	Time		
				1	25 +0/-	3	30min		
Φ		Char.	Specification	2	Room temper	ature	3min		
Styl	D.F.	В	D.F. ≤ 5,0%	3	.+ 105 +3	/0	30min		
ion	D	E	D.F. ≤ 5,0%	4	Room temperature		3min		
Temperature and Immersion Style				Cycle time: 5cycle Immersion cycle					
ature ar	I.R.	30	000M Ω min.	Step	Temperature (°C)	Time	Immersion Water		
empera				1	. +65 +/-0	15min	Clean Water		
	Dielectric			2	Room Temp.	15min.	Salt Water		
	Strength	Per Item 6		Pre-tratment: Capacitor shall be stored at 85 ±2°C for 1h, thenplaced at room conditions for 24 ± 2h.					
				Post-treatment: Capacitor shall be stored for 24 ± 2h at room conditions.					

[&]quot;Room Condition" Temperature 15 to 35°C, Relative humidity; 45 to 75%, Atmospheric pressure: 6 to 106KPa.

Y1 AC Ceramic Capacitor 250VAC

Part No.: I22001

Customer:

DRW:	Jason	CHKD	Wilson	MATL:	Wilson	TOLERANCE	Mason	DATE	01.11.201
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Ordering Informations

Serie		Range	Temperature Character.	Voltage	Tolerance Code	Lead Style Code	Lead Length Code	Lead Space Code	ROHS	Packing Code	
l22001 -	. [331	В	251	K	Α	20	D	R	BU	
		331= 330pf	B= Y5P	251= 250VAC	K= 10%	A= Style A	20= 20mm	A= 2,50mm	R= ROHS Conform	BU= Bulk Ware	
	L					B= Style B	05= 5mm / ±1mm	B= 5,00mm	N= NON ROHS	TA= Tape Ammo Pack	
						C= Style C		C= 7,50mm	Conform	TR= Tape Reel	
						D= Style D		D = 10,0mm			
						H= Style H		E= 12,5mm			
						M= Style M					

Y1 AC Ceramic Capacitor 250VAC

Part No.: **I22001**

Customer:

DRW: Jason CHKD Wilson MATL: Wilson TOLERANCE Mason DATE 01.11.2010 APPD: FINISH Sheet No. 12 from 13 Schumi Jamy



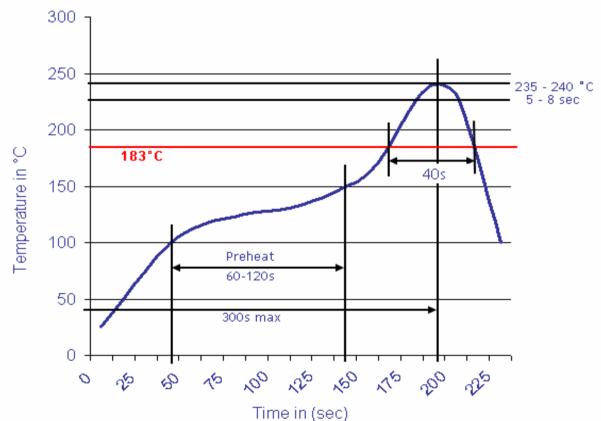






Soldering Profile Curve

Classification Reflow Profile (JEDEC J-STD-020C)



	Part No.:
1.2010	Customer:
10	Customer.

1.11.2010	Cust
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MATL: DRW: CHKD Wilson Wilson TOLERANCE Mason DATE Jason APPD: FINISH Schumi Sheet No. Jamy

Y1 AC Ceramic Capacitor **250VAC**

I22001