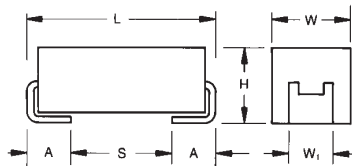


TAZ Series

HRC6000 Medical Implantable Grade



MARKING

(White marking on black body)



Polarity Stripe (+)

Capacitance Code
Rated Voltage

The TAZ HRC6000 Medical Grade series is the next generation of our internally qualified implantable medical grade tantalum capacitors. These components are screened using our newly designed Q-Process to effectively remove components that may experience parametric shifts through customer processing or display instability through life testing.

Due to the deficiencies of Weibull grading and its tendency to Burn-In potentially unstable units, this Q-Process utilizes a Product Level Designation system based on a simulated production routine performed on a sample from the population. Once that is completed a

calculation is done based on the performance of the sample which can take into account the application conditions of the end customer. This system also allows for derating recommendations to be relaxed as illustrated by the section below.

These components are manufactured and tested in the AVX Biddeford Maine facility which is ISO 13485 certified. For more information on this process or to request a specific rating please contact the factory. In addition, DC leakage testing at application voltage is available upon request.

CASE DIMENSIONS:

millimeters (inches)

Case Code	Length (L) ±0.38 (0.015)	Width (W) ±0.38 (0.015)	Height (H) ±0.38 (0.015)	Term. Width (W _t)	Term. Length (A) +0.25/-0.13 (+0.010/-0.005)	S min	Typical Weight (g)
E	5.08 (0.200)	2.54 (0.100)	1.27 (0.050)	2.41+0.13/-0.25 (0.095+0.005/-0.010)	0.76 (0.030)	2.92 (0.115)	0.065

CAPACITANCE AND RATED VOLTAGE, V_R (VOLTAGE CODE) RANGE (LETTER DENOTES CASE SIZE)

Capacitance		Rated Voltage			
μF	Code	4V	6V	10V	15V
0.68	684				A*
1.0	105			A*	
1.5	155		A*		
2.2	225				
3.3	335				
4.7	475				
6.0	605				
6.8	685				
10	106				E
15	156			E	
22	226		E		
33	336	E			
47	476				

Available ratings

*Codes under development - subject to change.

TAZ Series



HRC6000 Medical Implantable Grade

HOW TO ORDER

TAZ	E	106	*	015	C	□	L	Q	6	^	++
Type	Case Size	Capacitance Code	Capacitance Tolerance	Voltage Code	ESR	Packaging	Inspection Level	Reliability Grade	Qualification Level	Termination Finish	Surge Test Option
		pF code: 1st two digits represent significant figures 3rd digit represents multiplier (number of zeros to follow)	J = ±5% K = ±10% M = ±20%	004 = 4Vdc 006 = 6Vdc 010 = 10Vdc 015 = 15Vdc	C = Std ESR L = Low ESR	B = Bulk R = 7" T&R W = Waffle	L = Group A	Product Level Designator: Q = 0.1%/1000 hrs. Minimum, 60% conf	6 = HRC6000	H = Solder Plated 0 = Solder Fused 9 = Gold Plated 7 = 100% Tin	00 = None 23 = 10 Cycles, +25°C 24 = 10 Cycles, -55°C & +85°C 45 = 10 Cycles, -55°C & +85°C before Weibull
 LEAD-FREE LEAD-FREE COMPATIBLE COMPONENT RoHS COMPLIANT For RoHS compliant products, please select correct termination style.											

*Contact factory for AVX HRC6000 Medical Grade SCD details.

TECHNICAL SPECIFICATIONS

Technical Data:		Unless otherwise specified, all technical data relate to an ambient temperature of 25°C				
Capacitance Range:		0.68 µF to 33 µF				
Capacitance Tolerance:		±5%; ±10%; ±20%				
Rated Voltage (V _R)	≤ 85°C:	4	6	10	15	
Category Voltage (V _C)	≤ 125°C:	2.7	4	6.7	10	
Temperature Range:		-55°C to +125°C				

RATING & PART NUMBER REFERENCE		Parametric Specifications by Rating					Typical RMS Ripple Data by Rating					
		Cap @ 120Hz	DC Rated Voltage	ESR @ 100kHz	DCL max			Power Dissipation	25°C		125°C	
					+25°C	+85°C	+125°C		Ripple Current	(100kHz)	Ripple Current	(100kHz)
AVX HRC6000 P/N	Case	µF @ 25°C	V @ +85°C	Ohms @ +25°C	(µA)	(µA)	(µA)	W	A (100kHz)	(100kHz)	A (100kHz)	(100kHz)
TAZE336*004C□□□@6^++	E	33	4	3	0.33	3.3	3.96	0.090	0.173	0.156	0.069	0.519
TAZE226*006C□□□@6^++	E	22	6	3.5	0.33	3.3	3.96	0.090	0.160	0.144	0.064	0.505
TAZE156*010C□□□@6^++	E	15	10	3	0.375	3.75	4.50	0.090	0.173	0.156	0.069	0.520
TAZE106*015C□□□@6^++	E	10	15	4	0.375	3.75	4.50	0.090	0.150	0.135	0.060	0.540

All technical data relates to an ambient temperature of +25°C. Capacitance and DF are measured at 120Hz, 0.5V RMS with a maximum DC bias of 2.2 volts. DCL is measured at rated voltage after 5 minutes.

NOTE: AVX reserves the right to supply a higher voltage rating or tighter tolerance part in the same case size, to the same reliability standards.

HRC6000 DERATING GUIDELINES

Due to our new Q-Process technology the need for a typical 50% derating of the capacitors rated voltage in application is no longer needed. Below is a table outlining some of the common applications where these components are utilized along with appropriate derating recommendations. When determining the appropriate capacitor voltage rating to utilize, the application voltage is determined by the maximum D.C. voltage with the addition of any A.C. ripple voltage that may be present.

Recommended Derating	Application
20%	Filtering
0%	Pacing
0%	Hold-Up
0%	Charging