Subject: Mylar cap polarity - Help
Posted by colinhester on Wed, 29 Jun 2005 22:12:11 GMT
View Forum Message <> Reply to Message

Just some 10uF 400VDC mylar caps and there are no polarity markings. How do I tell which end is which? I contacted the seller and he was not quite sure either and emailed the mfg.....Colin

Subject: Re: Mylar cap polarity - Help
Posted by Wayne Parham on Wed, 29 Jun 2005 22:41:12 GMT
View Forum Message <> Reply to Message

Mylar capacitors are non-polarized. They are like other caps with a plastic dielectric, polypropylenes, polystyrenes, etc.

Subject: Re: Mylar cap polarity - Help
Posted by colinhester on Wed, 29 Jun 2005 22:55:14 GMT
View Forum Message <> Reply to Message

That's what I thought, but I just needed to double check. The schematic for the SV811-10 amp shows polatity on the Mylar caps, and that's what kind of threw me.....Colin

Subject: Re: Mylar cap polarity - Help?
Posted by Poindexter on Thu, 30 Jun 2005 02:50:56 GMT
View Forum Message <> Reply to Message

What about the outer foil / inner foil thing? You know anything about this? When I use nonpolarized caps, I just make sure that they are (channel-to-channel) oriented the same; I send the signal down the print on the outside, presuming that they are manufactured consistently. I am presuming presumptuously?Heh, Poinz

Subject: Re: Mylar cap polarity - Help
Posted by Steve on Thu, 30 Jun 2005 03:09:55 GMT
View Forum Message <> Reply to Message

Hi Colin, Some manufacturers specify which way to connect the cap, while others don't. I know one brand that outer wraps the caps randomly, so it is an individual cap situation. Mylars may not be that critical as there sonic signature is usually fairly strong. Take care.Steve

---

Subject: Re: Mylar cap polarity - Help
Posted by Thermionic on Thu, 30 Jun 2005 15:24:58 GMT
View Forum Message <> Reply to Message

Which direction the cap is installed won't make a difference in the sound, but which way it's installed WILL make a difference in how much noise can be coupled into the cap, which will of course indeed make a difference in sound.Always connect the outside foil to the lowest impedance, not the lowest voltage as many recommend. Voltage has nothing to do with it, it's the lowest *impedance* that you want! That'll most always be the plate of the first stage, versus the control grid of the second stage. The control grid is an extremely high impedance itself, with (usually) a bare minimum of 100K all the way up to a 1 Meg resistor to ground. OTOH, the impedance of the first driver stage (which is the product of the internal plate resistance in parallel with the load resistor), will most always be much lower. Even a very high plate resistance triode like a 12AX7 will only have about 40K output Z when the cathode resistor is bypassed, unbypassed still less than 70K depending on the cathode resistor value. So, the outside foil goes to that side for the best electrostatic shielding.Thermionic

---

Subject: Re: Mylar cap polarity - Help
Posted by Steve on Thu, 30 Jun 2005 16:11:28 GMT
View Forum Message <> Reply to Message

 Yes, it can make a sonic difference/sound, depending on the quality of the cap and quality of the components. A low value capacitor, say 0.05uf is generallly more critical in respect to the outer foil vs a higher value cap, say 2.0uf. The outer foil should be to the lower Z for sure if the cap is small. Good shielding and design will minimize or eliminate noise, interference problems to begin with.Take care. Steve

---

Subject: Re: Mylar cap polarity - Help
Posted by Steve on Thu, 30 Jun 2005 16:13:03 GMT
View Forum Message <> Reply to Message

Forgot to add, the mylar is fairly poor, so it may not make a sonic difference. Steve

---

Subject: Re: Mylar cap polarity - Help?
Posted by Wayne Parham on Thu, 30 Jun 2005 18:55:23 GMT
View Forum Message <> Reply to Message

Some film/foil caps have markings to indicate the outer layer. Some people prefer to treat these as signal inputs. But not all caps are marked that way.

Subject: Re: Mylar cap polarity - Help
Posted by Wayne Parham on Thu, 30 Jun 2005 19:09:05 GMT
View Forum Message <> Reply to Message

Audience (Auricap) recommends connecting the outer plate as signal input to the capacitor, probably under the assumption that output impedance of a prior stage is lower than input impedance of the stage following. But I like your suggestion that outer plate goes to lowest impedance, regardless of signal direction. If you know which is the outer foil, it makes sense to tie it to the lower impedance connection, where it will act more as a shield.

Subject: Capacitor surgery
Posted by colinhester on Fri, 01 Jul 2005 02:49:55 GMT
View Forum Message <> Reply to Message

I have no way to tell from the outside with lead is hooked to the foil. Can I simply cut one open and tell what's what, or is it more involved than this?.....Colin

Subject: Finding capacitor "polarity"
Posted by Thermionic on Fri, 01 Jul 2005 07:20:07 GMT
View Forum Message <> Reply to Message

Colinhester, there's only one way I know to find which lead is the outside foil if it's not marked with a line on the case or something. It's very easy to do, but you must have access to an oscilloscope. Connect the scope's leads to the cap leads, and set the scope to the lowest voltage division. Now, you'll need a lamp, radio, clock, anything that runs on 120VAC and is easily portable. Plug it in where you're working, turn it on, and run the cord across the table in front of you. Lay the body of the cap on top of the AC cord, and you'll see the 60Hz AC noise it induces on the scope.Now, reverse the leads on the cap around the other way. Notice which way has the lowest induced noise (one will have MUCH less). Whichever cap lead is connected to the scope's ground lead in the orientation with the lowest noise is the outside foil.There may be some other way, but this is

the classic method and the only one I know of.Thermionic

Subject: Wrong caps
Posted by colinhester on Sat, 02 Jul 2005 16:30:20 GMT
View Forum Message <> Reply to Message

It turns out, after reading the tech sheet the seller sent me, that I was sold metallized polypropylene caps and not metallized polyester (aka Mylar.) Got the correct ones ordered. Now on to the resistors.....Colin

---

Subject: Re: Wrong caps
Posted by Forty2wo on Sun, 03 Jul 2005 14:33:39 GMT
View Forum Message <> Reply to Message

I like The metallized polypropylene better than Mylar. These are the bypass caps right? You could use an oiller if you have a 40u or 50u looking for a home and have the space.But in this position the sonic difference will be very small.P.S I love the Kiwame resistors...John

---

Subject: Re: Wrong caps
Posted by colinhester on Mon, 04 Jul 2005 20:37:13 GMT
View Forum Message <> Reply to Message

I guess I'll keep the metallized polypropylene then. These things are BIG, about the size of a 35mm film canistor. I was wondering about room under the chassis, but I'll squeeze them in somehow. Thanks.....Colin

---

Subject: Re: Mylar cap polarity - Help
Posted by david on Tue, 15 Nov 2005 19:09:03 GMT
View Forum Message <> Reply to Message

where did you find those caps? i can't get them anywhere!

Subject: Re: Mylar cap polarity - Help
Posted by colinhester on Tue, 15 Nov 2005 21:47:55 GMT
View Forum Message <> Reply to Message

What I was sent were in fact NOT mylar caps as advertised. It turned out, luckily, that I misread the schematic, see below, and only needed 100V, not 400V.Just curious, but what are you building?
http://www.audioroundtable.com/GroupBuild/Projects/SV811_10.gif