SAMSUNG ELECTRO-MECHANICS

SPECIFICATION

RoHS+Halogen Compliant ecoparts

- **Last Revision Date :December.28.2009**
- **Date :November 16. 2009**

- **Supplier :Samsung electro-mechanics**
- **Product : Tantalum capacitor**
- **Samsung P/N : TCSCM0J106MJAR**
- **User Part No :**
- **Description : CAP,TANTAL,10μF,6.3V,±20%,1608-08.5**

1. Samsung Part Number

TC	SCM	0J	106	M	J	A	R
①	②	③	④	⑤	⑥	⑦	⑧

①	**Tantalum Capacitor**	TC			
②	**Series**	SCM			
③	**Rated Voltage**	6.3V			
④	**Capacitance**	10μF			
⑤	**Capacitance tolerance**	±20%			
⑥	**Case size code**	1608-08.5	L: 1.6 + 0.15 mm -0.1 mm	W: 0.85 + 0.15 mm - 0.1 mm	H: 0.85 + 0.15 mm, - 0.1 mm
⑦	**Packing code**	7" reel			

2. Reliability Test and Judgment Condition 2

Item	Performance	Test condition
Capacitance	Within specified tolerance	120㎐, maximum 1.0Vrms, maximum 1.5Volt D.C, at 25℃
Tan δ (DF)	Within specified value	120㎐, maximum 1.0Vrms, maximum 1.5Volt D.C, at 25℃
Impedance(Z) & ESR	Within specified value	100k㎐, maximum 1.0Vrms, maximum 1.5Volt D.C, at 25℃
Leakage current	Within specified value	The rated DC voltage shall be applied to terminals across the test capacitor charge Time: 5 min.
Temperature Characteristics	"-55℃ : △C/C -25~0% "+85℃ : △C/C 0~20% "+125℃ : △C/C 0~20%	(From -55℃ to 125℃,
Adhesion Strength	No peeling shall be occur on the terminal electrode	1005mm size : 2N, for 10±1 sec. 1608~7343mm size : 5N, for 10±1 sec.
Electrode Strength	Within specified tolerance Tan δ, LC : initial spec.	Bending to the limit (3mm) with 1.0mm/sec.
Solder ability	More than 95% of terminal surface is to be soldered newly	SnAg3.0Cu0.5 solder :245+/5℃, 3±0.3sec (preheating : 80~120℃ for 10~30sec.)
Resistance to Soldering heat	Capacitance change : within ±30% Tan :150% or less specified initial value LC : 200% or less specified initial value	Solder pot : 260±5℃, 10±1sec.
Vibration Test	Capacitance change : within ±15% Tan δ, LC : initial spec.	Amplitude : 1.5mm From 10Hz to 55Hz (return : 1min.) 2hours ´ 3 direction (x, y, z)
Moisture Resistance	Capacitance change : within ±30% Tan :150% or less specified initial value LC : 200% or less specified initial value	40±2℃, 90~95%RH, 500+8/-0hrs
High Temperature Resistance	Capacitance change : within ±30% Tan :150% or less specified initial value LC : 125% or less specified initial value	With the rated voltage Max. operating temperature 2000/-0hrs
Temperature Cycling	Capacitance change : within ±30% Tan :150% or less specified initial value LC : 200% or less specified initial value	1 cycle condition (Min. operating temperature → 25℃ → Max. operating temperature → 25℃) 5 cycle test

3. Recommended Soldering method

Reflow (Reflow Peak Temperature : 260±5℃, 10sec. Max)

With Pb-free products, if used under 235℃,the quality confirmation must be needed.

4.Ratings & Part Number Reference

Part Number	Capacitance	Leakage Current	DF %	ESR Ω
TCSCM0J106MJAR	**10μF**	**0.63μA**	**8%**	**4Ω**