TSM/TSP Tantalum MnO2 and KO Polymer Stacks

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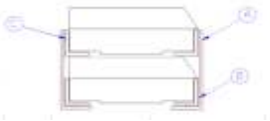
Characteristics and Typical Construction

- Variety of features by series
- Pb-Free & RoHS / ELV Compliant version standard
- 6 - 50 Volts
- 9.4 - 1980 uF Capacitance
- ± 10 and 20% Capacitance tolerance
- Tray Packaging



Ref	Name	Material
A	Leadframe	BeCu Alloy 190
B	Leadframe Attach	High Temp Solder
C	Lead Termination	Solder Coated Alloy 752

RoHS Restricted Substance Content

Key for Determining Adherence to China RoHS and EU 2002/95/EC and 2005/618/EC Content Criteria[1]
O = ≤ MCV, X = > MCV, X = > MCV, but EU RoHS Compliant with Exemption(s)

			Restricted Material						Compliant Version	
KEMET Product	Series	Material and MCV[1] Termination Code	Cd < 0.01%	Cr^{6+} < 0.1%	Pb < 0.1%	Hg < 0.1%	PBB < 0.1%	PBDE < 0.1%		China RoHS Symbol[2]
MnO2 Stacks	TSM	T or B	O	O	O	O	O	O	Available Since Release	
MnO2 Stacks	TSM	H or C	O	O	X	O	O	O		
Polymer Stacks	TSP	T or B	O	O	O	O	O	O	Available Since Release	
Polymer Stacks	TSP	H or C	O	O	X	O	O	O		

[1]MCV = Maximum Concentration Values per 2005/618/EC amending RoHS Directive 2002/95/EC and China RoHS criteria.

[2]China RoHS Symbol based on current manufacturing.

Soldering Capability Characteristics

	Matte Tin Termination	SnPb Termination
Termination Material	BeCu	BeCu
Termination Plating (Barrier)	100% Matte Tin (Copper, Nickel)	90Sn10Pb (Copper)
Peak Temperature Capability	260°C	260°C
Soldering Process Compatibility	Backward & Forward Compatible	Backward & Forward Compatible
MSL Rating	MnO2 - 1/Polymer - 3	1

[5]Per EIA/ECA component bulletin CB19, tin whiskering is not considered a reliability risk within the capacitor industry for non-Military / Hi-Rel applications.

Ordering

T	SM	2D	227	K	006	C	H	61	20
Capacitor Class	Series	Case Size	Capacitance Code (pF)	Capacitance Tolerance	Voltage	Failure Rate/ Design	Lead Material	Surge	ESR
T = Tantalum	Stacks MnO2 Cathode	2C,3C,4C,6C,2D,3D,4D,6D,2X,3X,4X,6X	First two digits represent significant figures. Third digit specifies number of zeros.	K = ±10% M = ±20%	006 = 6.3V 010 = 10V 016 = 16V 020 = 20V 025 = 25V 035 = 35V 050 = 50V	A = N/A B=0.1%/1000 hrs C=.01%/1000 hrs	H = Standard Solder Coated (SnPb 5% Pb minimum) C = Hot Solder Dipped B = Gold Plated T = 100% Tin	61 = None 62 = 10 Cycles 25C After Weibull 63 = 10 cycles, -55C and 85C After Weibull 64 = 10 cycles, -55C and 85C Before Weibull	10 = ESR - Standard 20 = ESR - Low 30 = ESR - Ultra low

Identification

Reel level **KEMET EZ ID** label indicates product content relative to substance restrictions of the EU RoHS Directive, 2002/95/EC, 2005/618/EC and China RoHS..
RoHS-PRC = Meets criteria without exemption
RoHS-EU = Meets criteria with exemption
RoHS-NO = Does not meet criteria