

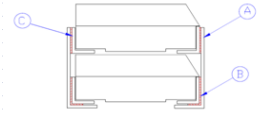
TSM/TSP Surface Mount MnO2 and Polymer Stacks

Revision B, 03 January 2013

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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 2011/65/EU Content Criteria¹
 O = ≤ MCV, X = > MCV, X = > MCV, but EU RoHS Compliant with Exemption(s)

KEMET Product	Series	Material and MCV ¹	Restricted Material						Compliant Version	China RoHS Symbol ²
			Cd	Cr ⁶⁺	Pb	Hg	PBB	PBDE		
MnO2 Stacks	TSM	T or B	O	O	O	O	O	O	Available Since Release	⓪
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	⓪
Polymer Stacks	TSP	H or C	O	O	X	O	O	O		ⓧ

¹MCV = Maximum Concentration Values per 2011/65/EU and China RoHS criteria.

²China RoHS Symbol based on current manufacturing.

Soldering Capability Characteristics

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

⁵Per 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	22T	K	086	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,2K,3K,4K,6K	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 = 0.12/1000 hrs C = 0.02/1000 hrs	H = Standard Solder Coated (Sn/Pb 95/5 minimum) C = Hot Solder Dipped (S = Gold Plated T = 100% Tin)	61 = None 62 = 10 Cycles 25C After Veebull 63 = 10 cycles, -55C and 85C After Veebull 64 = 10 cycles, -55C and 85C Before Veebull	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, 2011/65/EU, and China RoHS.
RoHS-PRC = Meets criteria without exemption
RoHS-EU = Meets criteria with exemption
RoHS-NO = Does not meet criteria

