

Reference: QOD-510

Product Change Notification

PCN-041816-ASG

Date:	ID Number (MMDDYY): 051416																																																													
Affected Products	<p>Product Series: Standard Termination X7R dielectric Automotive grade, Flexible Termination System X7R dielectric Automotive and Commercial grade.</p> <p>Part Types.</p> <ul style="list-style-type: none"> X7R 1206 EIA Case Size 10μF 6.3V to 16V X7R 1206 EIA Case Size 4.7μF 6.3V to 25V <p>Termination System/s and finishes: Flexible Termination 100%Sn and Standard Termination 100%Sn</p> <p>Product Grade/s:</p> <ul style="list-style-type: none"> Automotive grade for Standard Termination Commercial and Automotive grade for Flexible Termination <p>Packaging-Spec/s: 3123, 3124, 3171, 7621, 7800, AUTO, WENG</p>																																																													
Change Description	<p>Using the most technically advanced dielectric materials and design techniques, KEMET has improved its materials formulation to ensure an uninterrupted supply of Ceramic Capacitors establishing equal or better performance in all electrical, mechanical and reliability aspects.</p> <p>Qualification testing has been performed in accordance with the requirements of AEC Q200 and the package has been attached as part of this Notification.</p> <ul style="list-style-type: none"> Electrical & Physical Characteristics_ Standard Termination <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #2c3e50; color: white;">Part Type</th> <th style="background-color: #d9e1f2;">1206 X7R Dielectric 10μF 16V, 10V and 6.3V</th> <th style="background-color: #d9e1f2;">1206 X7R Dielectric 4.7μF 25V, 16V, 10V and 6.3V</th> </tr> </thead> <tbody> <tr><td>Length (mm)</td><td style="text-align: center;">3.20 \pm 0.20</td><td style="text-align: center;">3.20 \pm 0.20</td></tr> <tr><td>Width (mm)</td><td style="text-align: center;">1.60 \pm 0.20</td><td style="text-align: center;">1.60 \pm 0.20</td></tr> <tr><td>Thickness (mm)</td><td style="text-align: center;">1.60 \pm 0.20</td><td style="text-align: center;">1.60 \pm 0.20</td></tr> <tr><td>Bandwidth (mm)</td><td style="text-align: center;">0.50 \pm 0.25</td><td style="text-align: center;">0.50 \pm 0.25</td></tr> <tr><td>Temperature range</td><td style="text-align: center;">-55$^{\circ}$C to +125$^{\circ}$C</td><td style="text-align: center;">-55$^{\circ}$C to +125$^{\circ}$C</td></tr> <tr><td>Dissipation Factor (%)</td><td style="text-align: center;">10% max</td><td style="text-align: center;">10% max</td></tr> <tr><td>Aging Rate (Maximum % Capacitance Loss/Decade Hour)</td><td style="text-align: center;">3.5%</td><td style="text-align: center;">3.0%</td></tr> <tr><td>Insulation Resistance (min)</td><td style="text-align: center;">10 M-Ohm</td><td style="text-align: center;">21.27 M-Ohm</td></tr> <tr><td>Dielectric Withstanding Voltage</td><td style="text-align: center;">2.5xVr</td><td style="text-align: center;">2.5xVr</td></tr> </tbody> </table> Electrical & Physical Characteristics_ Flexible Termination <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #2c3e50; color: white;">Part Type</th> <th style="background-color: #d9e1f2;">1206 X7R Dielectric 10μF 16V, 10V and 6.3V</th> <th style="background-color: #d9e1f2;">1206 X7R Dielectric 4.7μF 25V, 16V, 10V and 6.3V</th> </tr> </thead> <tbody> <tr><td>Length (mm)</td><td style="text-align: center;">3.30 \pm 0.40</td><td style="text-align: center;">3.30 \pm 0.40</td></tr> <tr><td>Width (mm)</td><td style="text-align: center;">1.60 \pm 0.35</td><td style="text-align: center;">1.60 \pm 0.35</td></tr> <tr><td>Thickness (mm)</td><td style="text-align: center;">1.60 \pm 0.35</td><td style="text-align: center;">1.60 \pm 0.35</td></tr> <tr><td>Bandwidth (mm)</td><td style="text-align: center;">0.60\pm 0.25</td><td style="text-align: center;">0.60 \pm 0.25</td></tr> <tr><td>Temperature range</td><td style="text-align: center;">-55$^{\circ}$C to +125$^{\circ}$C</td><td style="text-align: center;">-55$^{\circ}$C to +125$^{\circ}$C</td></tr> <tr><td>Dissipation Factor (%)</td><td style="text-align: center;">10% max</td><td style="text-align: center;">10% max</td></tr> <tr><td>Aging Rate (Maximum % Capacitance Loss/Decade Hour)</td><td style="text-align: center;">3.5%</td><td style="text-align: center;">3.0%</td></tr> <tr><td>Insulation Resistance (min)</td><td style="text-align: center;">10 M-Ohm</td><td style="text-align: center;">21.27 M-Ohm</td></tr> <tr><td>Dielectric Withstanding Voltage</td><td style="text-align: center;">2.5xVr</td><td style="text-align: center;">2.5xVr</td></tr> </tbody> </table> 		Part Type	1206 X7R Dielectric 10 μ F 16V, 10V and 6.3V	1206 X7R Dielectric 4.7 μ F 25V, 16V, 10V and 6.3V	Length (mm)	3.20 \pm 0.20	3.20 \pm 0.20	Width (mm)	1.60 \pm 0.20	1.60 \pm 0.20	Thickness (mm)	1.60 \pm 0.20	1.60 \pm 0.20	Bandwidth (mm)	0.50 \pm 0.25	0.50 \pm 0.25	Temperature range	-55 $^{\circ}$ C to +125 $^{\circ}$ C	-55 $^{\circ}$ C to +125 $^{\circ}$ C	Dissipation Factor (%)	10% max	10% max	Aging Rate (Maximum % Capacitance Loss/Decade Hour)	3.5%	3.0%	Insulation Resistance (min)	10 M-Ohm	21.27 M-Ohm	Dielectric Withstanding Voltage	2.5xVr	2.5xVr	Part Type	1206 X7R Dielectric 10 μ F 16V, 10V and 6.3V	1206 X7R Dielectric 4.7 μ F 25V, 16V, 10V and 6.3V	Length (mm)	3.30 \pm 0.40	3.30 \pm 0.40	Width (mm)	1.60 \pm 0.35	1.60 \pm 0.35	Thickness (mm)	1.60 \pm 0.35	1.60 \pm 0.35	Bandwidth (mm)	0.60 \pm 0.25	0.60 \pm 0.25	Temperature range	-55 $^{\circ}$ C to +125 $^{\circ}$ C	-55 $^{\circ}$ C to +125 $^{\circ}$ C	Dissipation Factor (%)	10% max	10% max	Aging Rate (Maximum % Capacitance Loss/Decade Hour)	3.5%	3.0%	Insulation Resistance (min)	10 M-Ohm	21.27 M-Ohm	Dielectric Withstanding Voltage	2.5xVr	2.5xVr
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Product Series Ordering Information	Ordering Information for both Standard and Flexible Termination is not changing with this PCN.								
	Standard Termination								
	C	1206	C	106	K	4	R	A	C
Ceramic	Case Size (L" x W")	Specification/Series	Capacitance Code (pF)	Capacitance Tolerance	Rated Voltage (VDC)	Dielectric	Failure Rate / Design	Termination Finish	
	1206	C=Standard Termination	2 Sig. digits+ + Number of zeros	J = ±5% K = ±10% M = ±20%	9 = 6.3 8 = 10 4 = 16 3 = 25	R=X7R	A=N/A	C=100%Matte Sn	
	Flexible Termination								
	C	1206	X	106	K	4	R	A	C
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	1206	X=Flexible Termination	2 Sig. digits+ + Number of zeros	J = ±5% K = ±10% M = ±20%	9 = 6.3 8 = 10 4 = 16 3 = 25	R=X7R	A=N/A	C=100%Matte Sn	
Effective Date and Identification	Beginning October 21 st , 2016 Date Code. 1643xxxxxx								
For General Information Contact	Adriana Sanchez Product Management Automotive SCBG Ceramics +1 (864) 228 4381 AdrianaSanchez@kemet.com Craig Scruggs Product Management Automotive SCBG Ceramics +1 (864) 228 4178 CraigScruggs@kemet.com								
Affected Part Numbers	Please refer to "Affected Part Types" Excel file for KEMET part numbers being affected by this change. Part numbers listed in the "Affected Part Types" excel file will begin to be supplied with the improved material on October 21 st , 2016. Only the part numbers listed will be impacted.								

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