

# Appendix 7

## Piezo Products Taping Lists

The following table lists the taping suffix and minimum order quantities for Murata's piezo products.

Bulk Part Number	Taping/Magazine Part Number	Quantity/Unit		Remarks
		Bulk	Taping/Magazine	
<b>kHz Ceramic Resonators</b>				
<b>Non-washable Type (Magazine)</b>				
CSB...P (375 - 429kHz)	CSB...P-CA01	500	50	
CSB...E (430 - 509kHz)	CSB...E-CA01	500	50	
CSB...P (510 - 699kHz)	CSB...P-CA01	500	50	
CSU...P (450 - 500kHz)	CSU...P-CA01	500	50	Built-in load capacitors
<b>Washable* Type (Magazine)</b>				
CSB...D (190 - 374kHz)	Not Available	100	-----	Obsolete Part
CSB...J (375 - 699kHz)	CSB...J-CA01	500	50	
CSB...J (700 - 1250kHz)	CSB...J-CA01	1000	100	
<b>Surface Mount (Taping)</b>				
CSBF...J (430 - 500kHz)	CSBF...J-TC01	-----	1500	Washable*
CSKCC...E (400 - 600kHz)	CSKCC...E-TC01	-----		Obsolete Part
CSBF...J (700 - 1250kHz)	CSBF...J-TC01	-----	3000	Washable*
<b>MHz Ceramic Resonators</b>				
<b>Leaded</b>				
<b>2-Lead Terminal Type</b>				
CSA...MK(1.251 - 1.799MHz)	Not Available	500	-----	Obsolete Part
CSA...MG (1.80 - 2.44MHz)	CSA...MG-TF01	500	1000	Deemphasized Part
CSA...MG (2.45 - 6.30MHz)	CSA...MG-TF01	500	1500	Deemphasized Part
CSA...MTZ (6.31 - 13.00MHz)	CSA...MTZ-TF01	500	1500	Deemphasized Part
CSA...MXZ (13.01 - 60.00MHz)	CSA...MXZ-TF01	500	1500	Deemphasized Part
CSALS..M...X-B0 (16.00 - 70.00MHz)	CSTLS..M...X-A0	500	2000	Deemphasized Part
<b>Built-in Load Capacitor Type</b>				
CST...MG (1.80 - 2.44MHz)	CST...MG-TF01	500	1000	Deemphasized Part
CST...MGW (2.45 - 6.30MHz)	CST...MGW-TF01	500	1500	Deemphasized Part
CSTLS..M...G-B0 (2.00 - 3.39MHz)	CSTLS..M...G-A0	500	2000	Washable*
CSTS...MG (3.40 - 10.00MHz)	CSTS...MG-TZ	500	1500	Washable*
CST...MTW (6.31 - 13.00)	CST...MTW-TF01	500	1000	Standard from 10.01 - 13.00MHz
CST...MXW (13.01 - 60.00MHz)	CST...MXW-TF01	500	1000	Standard from 13.01 - 15.99MHz
CSTLS..M...X-B0 (16.00 - 70.00MHz)	CSTLS..M...X-A0	500	2000	Washable*
<b>Surface Mount</b>				
<b>2-Lead Terminal Type</b>				
CSAC...MGC (1.80 - 6.00MHz)	CSAC...MGC-TC	-----	1500	Deemphasized Part
CSAC...MGCM (1.80 - 6.00MHz)	CSAC...MGCM-TC	-----	1500	Deemphasized Part
CSACS...MT (6.01 - 13.00MHz)	CSACS...MT-TC	-----	1000	Deemphasized Part
CSACV...MTJ (6.01 - 13.00MHz)	CSACV...MTJ-TC20	-----	2000	Deemphasized Part
CSACS...MX (14.00 - 60.00MHz)	CSACS...MX-TC	-----	1000	Deemphasized Part
CSACV...MXJ (13.50 - 70.00MHz)	CSACV...MXJ-TC20	-----	2000	Deemphasized Part

Table 22. Piezo Products Taping List

CSACW...MX (20.01 - 70.00MHz)	CSACW...MX03-T	-----	3000	Deemphasized Part
<b>Built-in Load Capacitor Type</b>				
CSTC...MG (2.00 - 3.50MHz)	CSTC...MG-TC20	-----	2000	Obsolete Part
CSTCC...MG (2.00 - 10.00MHz)	CSTCC...MG-TC	-----	2000	Standard from 2.00 - 3.99, 8.00 - 10.00MHz
CSTCR..M...G-B0 (4.00 - 7.99MHz)	CSTCR..M...G-R0	-----	3000	
CSTCV...MTJ (10.01 - 13.00MHz)	CSTCV...MTJ-TC20	-----	2000	
CSTCS...MX (14.00 - 60.00MHz)	CSTCS...MX-TC	-----	1000	Deemphasized Part
CSTCV...MXJ (13.50 - 70.00MHz)	CSTCV...MXJ-TC20	-----	2000	
CSTCW...MX (20.01 - 70.00MHz)	CSTCW...MX03-T	-----	3000	
* Contact Murata for washing conditions ... represents the resonating frequency				
<b>kHz Filters</b>				
<b>2nd IF Ladder Filters</b>				
CFU...[ ]2	CFU...[ ]2-CA01	200	50	4 Elements
CFWS...[ ]	CFWS...[ ]-CA01	150	50	6 Elements
CFV...[ ]	CFV...[ ]-CA01	150	50	7 Elements
CFUM...[ ]	Not Available	250	-----	Miniature Size / 4 Elements
CFWM...[ ]	Not Available	150	-----	Miniature Size / 6 Elements
CFVM...[ ]	Not Available	300	-----	Miniature Size / 7 Elements
CFZM...[ ]	Not Available	150	-----	Miniature Size / 9 Elements
CFUS...[ ]Y	CFUS...[ ]Y-CA01	200	50	
CFWS...[ ]Y	Not Available	150	-----	
CFUM...[ ]Y	Not Available	250	-----	
CFWM...[ ]Y	Not Available	150	-----	
CFS...[ ]	Not Available	50	-----	Metal Case / 15 Elements
CFK...[ ]	Not Available	80	-----	Metal Case / 11 Elements
CFR...[ ]	Not Available	60	-----	Metal Case / 11 Elements
CFX...[ ]	Not Available	150	-----	Metal Case / 9 Elements
CFM...[ ]	Not Available	70	-----	Metal Case / 9 Elements
CFG...[ ]	Not Available	150	-----	Metal Case / 9 Elements
CFJ...K[ ]	Not Available	60	-----	Metal Case / 11 Elements
CFKR...[ ]I	Not Available	80	-----	Metal Case / 11 Elements / Flat GDT
CFL...[ ]G	Not Available	80	-----	Metal Case / 9 Elements / Flat GDT
CFUCG...[ ]	CFUCG...[ ]-TC	-----	450	SMD / 4 Elements
SFGCG...[ ]	SFGCG...[ ]-TC	-----	450	SMD / 4 Elements
SFPC...[ ]	SFPC...[ ]-TC01	-----	1000	SMD / 4 Elements
CFUCH...[ ]	CFUCH...[ ]-TC	-----	500	SMD / 4 Elements
CFZC...[ ]	CFZC...[ ]-TC	-----	350	SMD / 8 Elements
CFWC...[ ]	CFWC...[ ]-TC	-----	350	SMD / 6 Elements
... represents center frequency [ ] represents the bandwidth code (A, B, C, D, E, F, G, H, I, J)				
<b>Discriminators</b>				
CDB...C[ ]	CDB...C[ ]-CA01	500	50	
CDBM...C[ ]	CDBM...C[ ]-CA01	500	80	Miniature Version Of CDB
CDBC...CX[ ]	CDBC...CX[ ]-TC	-----	500	SMD
... represents center frequency [ ] represents IC indicator number				
<b>MHz Filters</b>				
SIF Filters				

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SFE...MB	SFE...MB-TF21	500	1500	Discontinued
SFE...MC	SFE...MC-TF21	500	1500	
SFSL...MCB	Not Available	500	-----	
SFSL...MDB	Not Available	500	-----	
SFSL...MEB	Not Available	500	-----	
SFSH...MCB	SFSH...MCB-TF21	500	1500	
SFSH...MDB	SFSH...MDB-TF21	500	1500	
SFSH...MEB	SFSH...MEB-TF21	500	1500	
SFSRA...C	SFSRA...C-A0	500	2000	
SFSRA...D	SFSRA...D-A0	500	2000	
SFSRA...E	SFSRA...E-A0	500	2000	
SFT...MA	Not Available	250	1500	
SFSCC...MC	SFSCC...MC-TC10	-----	3000	
... represents center frequency				
<b>Trap Filters</b>				
TPS...MJ	TPS...MJ-TF23	500	1500	
TPS...MB	TPS...MB-TF21	500	1500	
TPS...MC	TPS...MC-TF21	500	1500	
TPS...MWA	TPS...MWA-TF21	500	1500	
TPSRA...B-B0	TPSRA...B-A0	500	2000	
TPSRA...C-B0	TPSRA...C-A0	500	2000	
TPWA...B	TPWA...B-TF21	500	1500	Double Trap
TPT...B	TPT...B-TF21	500	1500	Triple Trap
TPSC...MB	TPSC...MB-TC	500	2000	SMD
TPSC...MC	TPSC...MC-TC	500	2000	SMD
MKT...MA	MKT...MA-TF01	500	1500	High Frequency Trap
... represents center frequency				
<b>Discriminators</b>				
CDA...MC[ ]	CDA...MC[ ]-TF21	500	1500	
CDA...ME[ ]	CDA...ME[ ]-TF21	500	1500	
CDA...MG[ ]	CDA...MG[ ]-TF21	500	1500	
CDSL...MC[ ]K	Not Available	500	-----	
CDSL...ME[ ]K	Not Available	500	-----	
CDSH...MC[ ]K	CDSH...MC[ ]K-TF21	500	1500	
CDSH...ME[ ]K	CDSH...ME[ ]K-TF21	500	1500	
CDSC...MC[ ]	CDSC...MC[ ]-TC10	500	3000	
CDAC...MC[ ]	CDAC...MC[ ]-TC	-----	1000	SMD
CDAC...MG[ ]	CDAC...MG[ ]-TC	-----	1000	SMD
CDACV...MG[ ]	CDACV...MG[ ]-TC	-----	2000	SMD
... represents center frequency				
[ ] represents IC indicator number				
<b>SAW Filters</b>				
SAF...M[ ]80Z	SAF...M[ ]80Z-TF01	300	500	
SAF...M[ ]70Z	Not Available	300	-----	
SAF...M[ ]60Z	Not Available	300	-----	
SAF...M[ ]55Z	Not Available	300	-----	
SAF...M[ ]200Z	SAF...M[ ]200Z-TF01	300	500	
SAF...M[ ]220Z	SAF...M[ ]220Z-TF01	300	500	
SAFW...M[ ]80Z	SAFW...M[ ]80Z-TF01	300	450	
... represents center frequency				

**Table 22. Piezo Products Taping List**

[ ] represents type					
FM IF Filters					
SFE...MA5-[ ]	SFE...MA5-[ ]-TF21	500	1500		
SFE...MS2-[ ]	SFE...MS2-[ ]-TF21	500	1500		
SFE...MS3-[ ]	SFE...MS3-[ ]-TF21	500	1500		
SFE...MA19-[ ]	SFE...MA19-[ ]-TF21	500	1500		Wide Bandwidth Series
SFE...MA20-[ ]	SFE...MA20-[ ]-TF21	500	1500		
SFE...MA21-[ ]	SFE...MA21-[ ]-TF21	500	1500		
SFE...MA5A10-[ ]	SFE...MA5A10-[ ]-TF21	500	1500		Low Insertion Loss Series
SFE...MS2A10-[ ]	SFE...MS2A10-[ ]-TF21	500	1500		
SFE...MS3A10-[ ]	SFE...MS3A10-[ ]-TF21	500	1500		
SFE...MJA10-[ ]	SFE...MJA10-[ ]-TF21	500	1500		
SFE...MA5B10-[ ]	SFE...MA5B10-[ ]-TF21	500	1500		High Attenuation Series
SFE...MS2B10-[ ]	SFE...MS2B10-[ ]-TF21	500	1500		
SFE...MS3B10-[ ]	SFE...MS3B10-[ ]-TF21	500	1500		
SFE...MJB10-[ ]	SFE...MJB10-[ ]-TF21	500	1500		
SFE...MHB10-[ ]	SFE...MHB10-[ ]-TF21	500	1500		
SFE...MA5C10-[ ]	SFE...MA5C10-[ ]-TF21	500	1500		Low Profile Series
SFE...MS2C10-[ ]	SFE...MS2C10-[ ]-TF21	500	1500		
SFE...MS3C10-[ ]	SFE...MS3C10-[ ]-TF21	500	1500		
SFE...MJC10-[ ]	SFE...MJC10-[ ]-TF21	500	1500		
SFE...MHC10-[ ]	SFE...MHC10-[ ]-TF21	500	1500		
SFE...MA8-[ ]	SFE...MA8-[ ]-TF21	500	1500		GDT Controlled Series
SFE...MS2G-[ ]	SFE...MS2G-[ ]-TF21	500	1500		
SFE...MS3G-[ ]	SFE...MS3G-[ ]-TF21	500	1500		
SFE...MX-[ ]	SFE...MX-[ ]-TF21	500	1500		GDT Improved Series
SFE...MZ-[ ]	SFE...MZ-[ ]-TF21	500	1500		
SFE...ML-[ ]	SFE...ML-[ ]-TF21	500	1500		
SFE...MP-[ ]	SFE...MP-[ ]-TF21	500	1500		
SFE...MM-[ ]	SFE...MM-[ ]-TF21	500	1500		
SFE...MHY-[ ]	SFE...MHY-[ ]-TF21	500	1500		Narrow Bandwidth Type
SFE...MTE-[ ]	Not Available	500	-----		2nd Harmonic Filter
SFE...MVE-[ ]	Not Available	500	-----		2nd Harmonic Filter
SFE...MFP-[ ]	Not Available	500	-----		Super Narrow Bandwidth Type
SFT...MS3-[ ]	Not Available	500	-----		3 Element Series
SFT...MS2-[ ]	Not Available	500	-----		
SFT...MA5-[ ]	Not Available	500	-----		
SFECA...MA2-[ ]	SFECA...MA2-[ ]-TC	-----	2000		
SFECA...MA5-[ ]	SFECA...MA5-[ ]-TC	-----	2000		
SFECA...MS2-[ ]	SFECA...MS2-[ ]-TC	-----	2000		
SFECA...MS3-[ ]	SFECA...MS3-[ ]-TC	-----	2000		
SFECA...MJ-[ ]	SFECA...MJ-[ ]-TC	-----	2000		
SFECA...MA19-[ ]	SFECA...MA19-[ ]-TC	-----	2000		
SFECA...MA2S-[ ]	SFECA...MA2-[ ]-TC	-----	2000		
SFECA...MA5S-[ ]	SFECA...MA5-[ ]-TC	-----	2000		
SFECA...MS2S-[ ]	SFECA...MS2-[ ]-TC	-----	2000		
SFECA...MS3S-[ ]	SFECA...MS3-[ ]-TC	-----	2000		
SFECA...MJS-[ ]	SFECA...MJ-[ ]-TC	-----	2000		
SFECA...MJKS-[ ]	SFECA...MJK-[ ]-TC	-----	2000		
SFECA...MA19S-[ ]	SFECA...MA19-[ ]-TC	-----	2000		

**Table 22. Piezo Products Taping List**

SFECV...MA21S-[ ]	SFECV...MA21-[ ]-TC	-----	2000	Wide Bandwidth
SFECV...MHS-[ ]	SFECV...MH-[ ]-TC	-----	2000	
SFECV...MHKS-[ ]	SFECV...MHK-[ ]-TC	-----	2000	
SFECS...MA5-[ ]	SFECS...MA5-[ ]-TC	-----	2000	Miniature version of the SFECV
SFECS...MS2-[ ]	SFECS...MS2-[ ]-TC	-----	2000	Miniature version of the SFECV
SFECS...MS3-[ ]	SFECS...MS3-[ ]-TC	-----	2000	Miniature version of the SFECV
CFEC...M[*]	CFEC...M[*]-TC	-----	2000	
CFECV...M[*]	CFECV...M[*]-TC	-----	2000	GDT Controlled Version Of SFECV
CFECS...M[*]	CFECS...M[*]-TC	-----	2000	Miniature Version Of CFECV
... represents center frequency				
[ ] represents rank of center frequency code				
[*] represents type				
<b>Buzzers</b>				
<b>External Drive Diaphragms</b>				
7BB-12-9	Not Available	5120	-----	
7BB-15-6	Not Available	8000	-----	
7BB-20-3	Not Available	3000	-----	
7BB-20-6	Not Available	1800	-----	
7BB-27-3	Not Available	1500	-----	
7BB-27-3R5	Not Available	2400	-----	
7BB-27-4	Not Available	1500	-----	
7BB-35-3	Not Available	800	-----	
7BB-41-2	Not Available	400	-----	
7BB-50M-1	Not Available	600	-----	
7SB-20-7	Not Available	1800	-----	
7SB-27-5	Not Available	1500	-----	
7MB-15-11	Not Available		-----	
7MB-20-7	Not Available	1800	-----	
7MB-27-3	Not Available	1800	-----	
7MB-27-4	Not Available	3500	-----	
7NB-31R2-19R7DM-1	Not Available	1600	-----	
7NB-35-1	Not Available	1200	-----	
7NB-41-25DM-1	Not Available	1600	-----	
7BB-20-6A0	Not Available	600	-----	
7BB-27-4A0	Not Available	600	-----	
7BB-35-3A0	Not Available	400	-----	
7BB-41-2A0	Not Available	250	-----	
7SB-20-7A1	Not Available	1600	-----	
<b>Self Drive Diaphragms</b>				
7BB-20-6C	Not Available	1800	-----	
7BB-27-3C	Not Available	2400	-----	
7BB-27-4C	Not Available	1500	-----	
7BB-35-3C	Not Available	800	-----	
7BB-41-2C	Not Available	400	-----	
7SB-34R7-3C	Not Available	800	-----	
7SB-34R7-3C2	Not Available	800	-----	
7NB-27-2C	Not Available	3000	-----	
7NB-27-3C	Not Available	1800	-----	
7NB-27-4C	Not Available		-----	
7BB-20-6CA0	Not Available	600	-----	

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7BB-27-4CA0	Not Available	600	-----	
7BB-35-3CA0	Not Available	400	-----	
7BB-41-2CA0	Not Available	250	-----	
<b>External Drive Buzzers</b>				
PKM17EW-2001	Not Available	250	-----	
PKM35-4A0	Not Available	500	-----	
PKM11-4A0	Not Available	400	-----	
PKM13EPY-4002	PKM13EPY-4002-TF01	330	500	
PKM17EPP-4001	Not Available	200	-----	
PKM22EPP-2001	Not Available	750	-----	
PKM22EPP-4001	Not Available	900	-----	
PKM22EPP-4005	Not Available	750	-----	
PKM22EPP-4007	Not Available	750	-----	
PKM22EP-2001	Not Available	360	-----	
PKM17EPT-4001	Not Available	180	-----	
PKM22EPT-2001	Not Available	300	-----	
PKM22EPT-4001	Not Available	300	-----	
PKMC16E-4000	PKMC16E-4000-TY	-----	1200	
<b>Self Drive Buzzers</b>				
PKM11-6A0	Not Available	400	-----	
PKM25-6A0	Not Available	630	-----	
PKM29-3A0	Not Available	90	-----	
PKM37-2A0	Not Available	56	-----	
PKM25SP-3701	Not Available	130	-----	
PKM24SP-3805	Not Available	360	-----	
PKM30SPT-2001	Not Available	70	-----	
PKM30SPT-2501	Not Available	70	-----	
<b>Buzzers With Internal Circuitry</b>				
PKB24SW-3301	Not Available	200	-----	
PKB6-5A0	Not Available	25	-----	
PKB5-3A0	Not Available	25	-----	
PKB24SPC-3601	Not Available	650	-----	
PKB8-4A0	Not Available	90	-----	
PKB30SPC-2001	Not Available	80	-----	
PKB30SPC-3001	Not Available	80	-----	
<b>Ringers For Telephone Applications</b>				
PKM34EW-1101C	Not Available	25	-----	
PKM34EW-1201C	Not Available	25	-----	
PKM44EW-1001C	Not Available	25	-----	
PKM44EP-0901	Not Available	160	-----	
PKM33EP-1201C	Not Available	300	-----	
<b>Receivers For Telephone Applications</b>				
PKD33EW-01R	Not Available	120	-----	
PKD22EW-01R	Not Available	300	-----	
PKD17-01R	Not Available		-----	
<b>Speakers</b>				
VSB41D25-07AR0	Not Available	100	-----	
VSB35EW-0701B	Not Available	160	-----	
VSB50EW-0301B	Not Available	80	-----	

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