



SNPB & NON-SN TERMINATION AVAILABILITY BY PRODUCT SERIES JULY '06

MLCC Ceramic Chip Family	Series	Description	Reliability	SnPb (Min 5% Pb) Termination Availability	Standard Termination Details	Alternative Finishes	Notes
MIL, QPL MLC Family Surface Mount	55681 - S*	CDR01, CDR02, CDR03, CDR04, CDR05, CDR06, CDR31, CDR32, CDR33, CDR34, CDR35	ER	✓	SnPb min 5% Pb		
	55681 - M*			PdAg	PdAg		
	55681 - N*			AgNiAu	AgNiAu		
	55681 - U*			✓	SnPb min 5% Pb over Ni barrier		
	55681 - W*			○	Sn supplied to customer request only		
MLC Family Surface Mount	MLCC	0201, 0402, 0504, 0603, 0805, 1206, 1210, 1808, 1812, 1825, 2220, 2225 4V - 500V	Non-ER	✗	100% matte Sn, Ni Barrier	PdAg	Use LD Series
	LD	LD02, LD03, LD04, LD05, LD06, LD08, LD10, LD12, LD13, LD14, LD20 4V - 500V	Non-ER	✓	SnPb min 5% Pb, Ni Barrier	PdAg	
Flexi- Termination	MLC - Z*	0603, 0805, 1206, 1210, 1812	Non-ER & ER	✗	100% matte Sn flex	Unplated for Hybrid Mounting	Use LD Series
	LD - Z*	0603, 0805, 1206, 1210, 1812	Non-ER & ER	✓	Sn Pb flex		
Cap Array SMD	MLC Array	0508, 0612	Non-ER	✗	100% matte Sn		
Low Inductance	LICC	0204 0306, 0508, 0612	Non-ER	✗	SnPb min 5%		Use LD Series
	LICC Sn Pb	LD15, LD16, LD17, LD18	Non-ER	✓	100% matte Sn		
	W2	IDC Interdigitated 0508	Non-ER	✗	100% matte Sn		
	W3	IDC Interdigitated 0612	Non-ER	✗	100% matte Sn		
	L2	IDC Interdigitated 0508	Non-ER & ER	✓	SnPb min 5%		
	L3	IDC Interdigitated 0612	Non-ER & ER	✓	SnPb min 5%		
	LICA - F*, H*	Array, Flip chip, C4 solder	Non-ER & ER	✓	C4		
	LICA - P*	Array, Flip chip	Non-ER & ER	No C4 Bumps	Cr Cu Au		
LICA - N*	Array, Flip chip	Non-ER & ER	No C4 Bumps	Cr Ni Au			
LICA - X*	Array, Flip chip	Non-ER & ER	Unterminated	Unterminated			
HI VOLTAGE	HI VOLTAGE - T*	1206, 1210, 1808, 1812, 1825, 2220, 2225, 3640 600V - 5kV	Non-ER	✗	100% matte Sn, Ni Barrier	PdAg	Use LD Series
	HI VOLTAGE - 1*	1206, 1210, 1808, 1812, 1825, 2220, 2225, 3640 600V - 5kV	Non-ER	PdAg	PdAg		Use LD Series
	LD High Voltage	LD06, LD08, LD10, LD12, LD13, LD14, LD20, LD40 600V - 5kV	Non-ER	✓	SnPb min 5% Pb over Ni Barrier	PdAg	
	TIP & RING - T*	1206, 1210, 1808, 1812, 1825, 2220, 2225	Non-ER	✗	100% matte Sn, Ni Barrier		Use LD Series
	TIP & RING - B*	LD 05, LD06, LD08, LD10, LD12, LD13, LD14, LD20	Non-ER	✓	SnPb, 5% min Pb		
* Character used in 12th position of Part Number to Designate Termination.							
Termination Legend:	✓	SnPb as Standard	✗	100% Matte Sn	○	SnPb - Limited Availability - Contact Factory	



SNPB & NON-SN TERMINATION AVAILABILITY BY PRODUCT SERIES

Axial & Radial Leaded Ceramic & Glass Family	Series	Description	Reliability	SnPb (Min 5% Pb) Termination Availability	Standard Termination Details	Alternative Finishes	Notes
MIL, QPL Ceramic Radial Leaded Capacitors	MIL-PRF-11015/18, /19	CK05, CK06	Non-ER	✓			
	MIL-PRF-39014/01, /02, /20, /23	CKR04, CKR05, CKR06, CKR08	ER	✓			
	MIL-PRF-20/35, /36	CCR05/CC05, CCR06/CC06, CCR07/CC07, CCR08/CC08, CCR09/CC09	ER	✓			
	MIL-PRF-123/01, /02	CKS05, CKS06	ER	✓			
	ESA-SSC 3001 -	CLC904, 05, 08, 10	ER	✓			
MIL QPL Glass Radial Capacitors	MIL-PRF-11272/13, /14, /15	CY06, CY07, CY08	ER	✓	Solder plated dumet		
	MIL-PRF-23269/10	CYR52, CYR53	ER	Gold	Gold plated dumet		
MIL, QPL Ceramic Axial Leaded Capacitors	MIL-PRF-11015/20, /25	CK16	Non-ER	✓			
	MIL-PRF-39014/05	CKR15, CKR16	ER	✓			
	MIL-PRF-20/28, /29, /30, /31	CCR75/CC75, CCR76/CC76, CCR77/CC77, CCR78/CC78, CCR79/CC79	ER	✓			
	MIL-PRF-123/04, /05, /06, /07, /08 - C^	CKS11, CKS12, CKS14, CKS15, CKS16	ER	✓	Copper, solder Coated SnPb		
	MIL-PRF-123/04, /05, /06, /07, /08 - W^	CKS11, CKS12, CKS14, CKS15, CKS16	ER	✓	Copper clad steel, 60uin min SnPb		
MIL, QPL 2-pin DIP	MIL-PRF-39014/22	CKR22	ER	✓			
	MIL-PRF-123/16, /17, /18	CKS22, CKS23, CKS24	ER	✓			
MIL QPL Glass Axial Capacitors	MIL-PRF-11272/01, /02, /03, /04	CY10, CY15, CY20, CY30	ER	✓			
MIL QPL Glass K Axial Capacitors	MIL-PRF-11015/25	CK32, CK32	ER	Gold	Gold plated dumet		
				Gold	Gold plated dumet		
Glass Axial composite	CY31	CKR31, CKR32	Non-ER	✓			
Leaded Ceramic Capacitors	SA	Conformal Axial	Non-ER	✓			
	SA - R*	Conformal Axial	Non-ER	X			
	SR - R #	Conformal Radial	Non-ER	○			Use11th pos'n
	SR - R*	Conformal Radial	Non-ER	X			
	MA	Molded Axial	Non-ER	✓			
	MA - R*	Molded Axial	Non-ER	X			
	MR	Molded Radial	Non-ER	✓			
	MR - R*	Molded Radial	Non-ER	X			
	MD	Molded DIP	Non-ER	✓			
	MD - R*	Molded DIP	Non-ER	X			
	MC	Mini-Ceramic	Non-ER	✓			
* Character used in 12th position of Part Number to Designate Termination.							
# Use H, B, R or a number 4 in the 11th. position of the SR part number for Sn Pb Termination							
^ Character used in 15th position of Part Number to Designate Termination.							
Termination Legend:	✓	SnPb as Standard	X	100% Matte Sn	○	SnPb - Limited Availability - Contact Factory	



SNPB & NON-SN TERMINATION AVAILABILITY BY PRODUCT SERIES

Tantalum Family	Series	Description	Reliability	SnPb (Min 5% Pb) Termination Availability	Standard Termination Details	Alternative Finishes	Notes	
Professional	TAZ	Molded Chip	Non-ER & ER	✓	Fused SnPb over Ni Flash	HSD - Hot Solder Dip 60Sn/40Pb	Gold	
MIL QPL, Established Reliability & COTS Plus - Discrete & Module	CWR09	Molded Chip	ER	✓				
	CWR11	Molded Chip	ER	✓				
	CWR19	Molded Chip, Extended range	ER	✓				
	CWR29	Molded Chip, Low ESR	ER	✓				
	TBJ	Standard & Low ESR	Non-ER & ER	✓				
	TBM	Low ESR MultiAnode	Non-ER & ER	✓				
	TCP	Molded Chip Module	ER	✓				
	CWR15	Microchip	ER	✓	SnPb over Ni Flash			
Standard, Low ESR, Automotive, High Temperature (150C)	TAJ	Molded Chip	Non-ER	✗	100% matte Sn over Ni Flash	SnPb Fused Min 5% Pb	Gold	Use TBJ series
	TAJ - H*, K*	Molded Chip	Non-ER	○			Use TBJ series	
	TPS	Molded Chip, Low ESR	Non-ER	✗			Gold	Use TBJ Series
	TPS - H*, K*	Molded Chip, Low ESR	Non-ER	○			Use TBJ Series	
	TLJ	Extended Range Molded Chip	Non-ER	✗			Gold	
	TCJ	Polymer Molded Chip	Non-ER	✗			Gold	
	TPM	Low ESR MultiAnode	Non-ER	✗			Use TBM Series	
	TPM - H*, K*	Low ESR MultiAnode	Non-ER	✓			Use TBM Series	
	TRJ	Automotive Molded Chip	Automotive	✗			Gold	
	TRJ - H*, K*	Automotive Molded Chip	Automotive	✓				
	THJ	150C Molded Chip	Automotive	✗			Gold	
THJ - H*, K*	150C Molded Chip	Automotive	✓					
Microchip	TAC	Microchip	Non-ER	✗	100% matte Sn	Gold		
	TPC	Microchip	Non-ER	✗		Gold		
	TRC	Microchip	Non-ER	✗				
	TLC	Microchip	Non-ER	✗				
	TMC	Microchip	ER	✗		Gold		
	CWR15	Microchip	ER	✓	SnPb over Ni Flash	Gold		
Leaded Tantalum	TAP	Radial Leaded	Non-ER	✗	100% matte Sn		Use TEP Series	
	TEP	Radial Leaded	Non-ER	✓	SnPb			
	TAP - R*	Radial Leaded	Non-ER	✗	100% matte Sn			
	TAA	Axial Molded	Non-ER	✓	SnPb			
	TAR	Axial Hermetic Metal Can	Non-ER	✓				
* Character used in 12th position of Part Number to Designate Termination.								



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Niobium Family	Series	Description	Reliability	SnPb (Min 5% Pb) Termination Availability	Standard Termination Details	Alternative Finishes		Notes
Standard, Low ESR, MultiAnode	NBJ	Molded Chip	ER	✓	100% matte Sn over Ni Flash	SnPb - contact Factory	Gold	
	NBJ	Molded Chip, Low ESR	ER	✓			Gold	
	NBM	Low ESR MultiAnode	ER	✓				
Standard, Low ESR, MultiAnode	NOJ	Molded Chip	Non-ER	✗	100% matte Sn over Ni Flash	SnPb - contact Factory	Gold	Use NBJ Series
	NOS	Molded Chip, Low ESR	Non-ER	✗			Gold	Use NBJ Series
	NOM	Low ESR MultiAnode	Non-ER	✗				Use NBM Series
Termination Legend:		✓	SnPb as Standard	✗	100% Matte Sn	○	SnPb - Limited Availability - Contact Factory	
Thin Film/ Microwave Family	Series	Description	Reliability	SnPb (Min 5% Pb) Termination Availability	Standard Termination Details	Alternative Finishes		Notes
Thin Film Capacitors	ACCU-F	All case sizes	Non - ER	✓	Sn 63, Pb 37			
	ACCU-P -W*	0201, 0402	Non - ER	✓	Sn 90, Pb 10			
	ACCU-P - S*	0402	Non - ER	✗	100% Matte sn			
	ACCU-P - T*	0603, 0805, 1210	Non - ER	Non - ER	Sn 96, Ag 4	Sn 96, Ag 5		
Thin Film Inductors	ACCU-L -W*	0603, 0805	Non - ER	✓	Sn 63, Pb 37			
	ACCU-L -T*	0603, 0805	Non - ER	✗	100% Matte sn			
	ACCU-L -T*	LGA 0402, LGA 0603	Non - ER	✗	100% Matte sn			
Thin Film Couplers	CP - W*	CP 0603, CP 0805	Non - ER	✓	Sn90, Pb10			
	CP - S*	CP 0603	Non - ER	✗	100% Matte sn			
	CP - L*	LGA 0402, LGA 0603	Non - ER	✓	Sn90, Pb10			
	CP - N*	LGA 0402, LGA 0603	Non - ER	✗	100% Matte sn			
	DB - W*	3dB DB0805	Non - ER	✓	Sn90, Pb10			
	DB - S*	3dB DB0806	Non - ER	✗	100% Matte sn			
Low Pass Filters	LP - N	LGA LP0603	Non - ER	✗	100% Matte sn			
	LP - W	LP0805	Non - ER	✓	Sn90, Pb10			
	LP - S	LP0806	Non - ER	✗	100% Matte sn			
Microwave Porcelain	AQ / SQ - Q*		Non - ER	✗	100% matte Sn			
	AQ / SQ - J*		Non - ER	✓	60/40 SnPb	PdAg	Gold	
Single Layer	SLC	GH / GB	Non - ER	Gold	100uin Au overTi/W	Ti/W-Ni-Au		
* Character used in 12th position of Part Number to Designate Termination.								
Termination Legend:		✓	SnPb as Standard	✗	100% Matte Sn	○	SnPb - Limited Availability - Contact Factory	



SNPB & NON-SN TERMINATION AVAILABILITY BY PRODUCT SERIES

Circuit Protection Family	Series	Description	Reliability	SnPb (Min 5% Pb) Termination Availability	Standard Termination Details	Alternative Finishes	Notes
Accu-Guard Fuses	F - S*	F0402E, F0603C, F0603E,	Non - ER	X	100% matte Sn Sn 63, Pb 37		
	F - W*	F0805B, F01206A, F01206B	Non - ER	✓			
Transient SMD	VC - P^	0402, 0603, 0805, 1206	Non - ER	X	Ni/Sn Alloy	Unplated	
	VC - M^	0402, 0603, 0805, 1206	Non - ER	✓	Ni/SnPb	Unplated	
	VJ - P^	1206, 1210	Non - ER	X	Ni/Sn Alloy	Unplated	
	VJ - M^	1206, 1210	Non - ER	✓	Ni/SnPb	Unplated	
StaticGuard SMD	VCxxLC - P^	0402, 0603, 0805, 1206	Non - ER	X	Ni/Sn Alloy	Unplated	
	VCxxLC - M^	0402, 0603, 0805, 1206	Non - ER	✓	Ni/SnPb	Unplated	
UltraGuard SMD	VCUG - P^	04, 06, 08	Non - ER	X	Ni/Sn Alloy	Unplated	
	VCUG - M^	04, 06, 08	Non - ER	✓	Ni/SnPb	Unplated	
Transient SMD Array	MG - P^	04, 05, 06	Non - ER	X	Ni/Sn Alloy	Unplated	
	MG - M^	04, 05, 06	Non - ER	✓	Ni/SnPb	Unplated	
UltraGuard Array	MGUG - P^	04, 06, 08	Non - ER	X	Ni/Sn Alloy	Unplated	
	MGUG - M^	04, 06, 08	Non - ER	✓	Ni/SnPb	Unplated	
Transient Feedthru SMD	V2F, V3F - P*	0805, 0612	Non - ER	X	Ni/Sn Alloy	Unplated	
	V2F, V3F -M*	0805, 0613	Non - ER	✓	Ni/SnPb	Unplated	
Transient Axial Leaded	VA	10	Non - ER	✓	Cu clad steel, SnPb plated		
StaticGuard Axial Leaded	VA	10	Non - ER	✓			
Disc Varistors	VARISTORS - VE, VF		Non - ER	X	100% matte Sn		
SMD Feedthru	W2F, W3F	0508, 0612	Non - ER	X	100% matte Sn, Ni Barrier		
SMD Feedthru Array	W2F, W3F	0508, 0612 2 & 4 Element	Non - ER	X			
SMD Hi Current Feedthru	W2H1, W3H1	0508, 0612	Non - ER	X	100% matte Sn, Ni Barrier		
* Character used in 12th position of Part Number to Designate Termination.							
^ Character used in 14th position of Part Number to Designate Termination.							
Termination Legend:	✓	SnPb as Standard	X	100% Matte Sn	○	SnPb - Limited Availability - Contact Factory	



SNPB & NON-SN TERMINATION AVAILABILITY BY PRODUCT SERIES

EMI Filter Family	Series	Description	Reliability	SnPb (Min 5% Pb) Termination Availability	Standard Termination Details	Alternative Finishes		Notes
EMI Filters, Solder-in, Bolt style, Hermetic Broadband	ZXS		ER	✓	Au	Silver	SnPb	
	ZYS		ER	✓	Au	Silver	SnPb	
	ZZS		ER	✓	Au	Silver	SnPb	
	ZZ		ER	✓	Au	Silver	SnPb	
	ZS/ZR		ER	✓	Au	Silver	SnPb	
	YS/YR		ER	✓	Au	Silver	SnPb	
	XS/XR		ER	✓	Au	Silver	SnPb	
	WS/WR		ER	✓	Au	Silver	SnPb	
	SXD		ER	✓	SnPb	Silver	Gold	
	SYD		ER	✓	SnPb	Silver	Gold	
	SZD		ER	✓	SnPb	Silver	Gold	
	SA		ER	✓	SnPb	Silver	Gold	
	SD		ER	✓	SnPb	Silver	Gold	
	SB		ER	✓	SnPb	Silver	Gold	
	SH		ER	✓	SnPb	Silver	Gold	
	SJ		ER	✓	SnPb	Silver	Gold	
	SP		ER	✓	SnPb	Silver	Gold	
	SN		ER	✓	SnPb	Silver	Gold	
	SR		ER	✓	SnPb	Silver	Gold	
	BL		ER	✓	SnPb	Silver	Gold	
BK		ER	✓	SnPb	Silver	Gold		
CK		ER	✓	SnPb	Silver	Gold		
GK		ER	✓	SnPb	Silver	Gold		
HK		ER	✓	SnPb	Silver	Gold		
JD		ER	✓	SnPb	Silver	Gold		
JT		ER	✓	SnPb	Silver	Gold		
Termination Legend:	✓	SnPb as Standard	✗	100% Matte Sn	○	SnPb - Limited Availability - Contact Factory		



SNPB & NON-SN TERMINATION AVAILABILITY BY PRODUCT SERIES

Supercapacitor EDLC	Series	Description	Reliability	SnPb (Min 5% Pb) Termination Availability	Standard Termination Details	Alternative Finishes	Notes
Bestcap	BZ	Supercapacitor	Non - ER	NiAu	NiAu		
Termination Legend:	✓	SnPb as Standard	✗	100% Matte Sn	○	SnPb - Limited Availability - Contact Factory	
Advanced Switchmode Family	Series	Description	Reliability	SnPb (Min 5% Pb) Termination Availability	Standard Termination Details	Alternative Finishes	Notes
SMPS	MIL-PRF-49470/2	1, 2, 3, 4, 5, 6	ER	✓	SnPb		Use MIL-PRF-49470/2
	DSCC 87106	1, 2, 3, 4, 5, 6	ER	✓	SnPb		
	DSCC 88011	1, 2, 3, 4, 5, 6	ER	✓	SnPb		
	DSCC 88012	1, 2, 3, 4, 5, 6	ER	✓	SnPb		
	SMPS - SM0/5/9 / HV	1, 2, 3, 4, 5, 6	Non - ER	✓	SnPb		
Leaded SMPS & Leaded High Voltage	ESCC 3001	CV / BR / CH / RH	ER	✓	SnPb		
	CV / BR / CH / RH	CV / BR / CH / RH	Non - ER	✓	SnPb		
	SK - ER	01, 02, 03, 53, 04, 54, 05, 55, 06, 07, 08, 09, 10	ER	✓	SnPb		
	SV / SK / SE		Non - ER	✓	SnPb		
	HV Series DIP	01, 02, 03, 04, 05, 06	Non - ER	✓	SnPb		
Termination Legend:	✓	SnPb as Standard	✗	100% Matte Sn	○	SnPb - Limited Availability - Contact Factory	



SNPB & NON-SN TERMINATION AVAILABILITY BY PRODUCT SERIES

Industrial Product Family	Series	Description	Reliability	SnPb (Min 5% Pb) Termination Availability	Standard Termination Details	Alternative Finishes	Notes	
Disc Ceramic	Disc	6LR, 6LS, 6LT, 67S, 68S	Non - ER	X	100% Matte Sn			
	Disc	5A-5Z , Class 1 & Class 1		X	100% Matte Sn			
	Safety Disc	61, 62, 65		X	100% Matte Sn			
	Disc	5K Class SL		X	100% Matte Sn			
	Disc	5A-5Z , 6A-6Z Class 1 & Class 2, GP & Professional			X	100% Matte Sn		
	Very High Voltage Ceramic	HP, HR, HS, HT, HU, HZ	Non - ER		✓	SnPb		
Film Capacitors	CHIP FILM - CF	Std & High Voltage	Non - ER		✓	SnPb		
	CHIP FILM - CB #	Std & High Voltage	Non - ER		X	100% Matte Sn		
	BOX FILM BN, BA, BL	Radial Polyester & Radial Polypropylene	Non - ER		X	100% Matte Sn		
	BOX FILM - BF	Radial Polyester	Non - ER		✓	SnPb		
	BOX FILM - BH, BQ	Radial Polyester	Non - ER		X	100% Matte Sn		
Power Capacitors	HIGH POWER CAPS		Non - ER		Machined Terminals	100% Matte Sn		
	LEADED MED. POWER CAPS (DRY)		Non - ER		X	100% Matte Sn		
	OTHER MEDIUM POWER CAPS (DRY)		Non - ER		Machined Terminals	100% Matte Sn		
Leaded NTC Thermistors	THERMISTORS NF-NI		Non - ER		X	100% Matte Sn		
Leaded NTC Thermistors	THERMISTORS ND - NJ		Non - ER		X	100% Matte Sn		
SMD NTC Thermistors	THERMISTORS - NC		Non - ER		X	100% Matte Sn		
	THERMISTORS - NB		Non - ER		X	100% Matte Sn		
Termination Legend:	✓	SnPb as Standard	X	100% Matte Sn	○	SnPb - Limited Availability - Contact Factory		