

MURATA PRODUCTS

Available Product List for RoHS Restriction



Innovator in Electronics

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1 Capacitors

Product Names	Part Number	Available	Available on limited P/N	Not Available	Sample	Mass Production	Notice
● Chip Monolithic Ceramic Capacitors							
Ultra Small Type	GRM03	O			Yes	Yes	
for Flow / Reflow Soldering	GRM	O			Yes	Yes	
for Automotive	GCM	O			Yes	Yes	
High Frequency Low Loss Type	GJM	O			Yes	Yes	
High - Q & High Power Type	ERF	O			Yes	Yes	
for High Frequency	ERA			O			Please contact us for details.
High Frequency for Flow / Reflow Soldering	GQM	O			Yes	Yes	
for Ultrasonic Sensors	GRM21	O			Yes	Yes	
Monolithic Microchip	GMA	O			Yes	Yes	
Capacitor Array	GNM	O			Yes	Yes	
Low - ESL Capacitors Wide Width Type	LLL	O			Yes	Yes	
for Medium Voltage	GRM/GR4	O			Yes	Yes	
Products which are Based on the Electrical Appliance and Material Safety Law of Japan	GA2	O			Yes	Yes	
Safety Standard Recognized	GA3	O			Yes	Yes	
● Monolithic Ceramic Capacitors Lead Type							
Radial Lead Type	RPE	O			Yes	Yes	
High - Q & High Power Type	ERH1X	O			Yes	Yes	
	ERH3X	O			Yes	Yes	
High Frequency Type	ERD32	O			Yes	Yes	
● High Voltage Ceramic Capacitors							
125 deg. / Low - Loss / DC250V - 3kV	DES/DEH	O			Yes	Yes	
125 deg. / Class 1 / DC1kV - 3kV	DEA	O			Yes	Yes	
Class 2 / DC1kV - 3kV	DEB	O			Yes	Yes	
Class 1, 2 / DC6kV	DEC	O			Yes	Yes	
● Safety Standard Recognized Ceramic Capacitors							
Type KY (UL, CSA, IEC60384-14 Class X1 / Y2)	DE2	O			Yes	Yes	
Type KH (UL, CSA, IEC60384-14 Class X1 / Y2)	DE2	O			Yes	Yes	
Type KX (UL, CSA, IEC60384-14 Class X1 / Y1)	DE1	O			Yes	Yes	
Products which are Based on the Electrical Appliance and Material Safety Law of Japan	DEJ	O			Yes	Yes	
● High Voltage Ceramic Capacitors (10kV - 40kV)	DHR/DHS	O			Yes	Yes	
● High Frequency Power Ceramic Capacitors	DC5/DC6/DCA/DCT			O			Please contact us for details.
● Ceramic Trimmer Capacitors							
SMD Type	TZB4	O			Yes	Yes	
	TZC3	O			Yes	Yes	
	TZR1	O			Yes	Yes	
	TZS2	O			Yes	Yes	
	TZV2	O			Yes	Yes	
	TZW4	O			Yes	Yes	
	TZY2	O			Yes	Yes	
Lead Type	TZB4	O			Yes	Yes	
	TZ03	O			Yes	Yes	
● C Networks							
	CGSD	O			Yes	Oct. 2004	
	B□□C	O			Yes	Oct. 2004	

2 Resistors / Thermistors

Product Names	Part Number	Available	Available on limited P/N	Not Available	Sample	Mass Production	Notice
● POSISTOR® for Heater	PTWSB	O			Yes	Yes	
	PTWTA	O			Yes	Yes	
● POSISTOR® for Degaussing Circuits	Case Type	PTDAA/PTDCA	O		Yes	Yes	
	Lead Type	PTDL7	O		Yes	Yes	
● POSISTOR® for Motor Starters	Plug On Type	PTH7M/8M	O		Yes	Yes	
● POSISTOR® for Circuit Protection	Chip Type	PRG	O		Yes	Yes	
	Lead Type	PTGL	O		Yes	Yes	
● POSISTOR® for Overheat Sensing	Chip Type	PRF	O		Yes	Yes	
	Lead Type	PTFL/PTFM	O		Yes	Yes	
● NTC Thermistors for Temperature Compensation	NCP	O			Yes	Yes	
● NTC Thermistors for Temperature Sensor	NTS	O			Yes	Yes	
● NTC Thermistors for Inrush Current Suppression	NTPA	O			Yes	Yes	
● High Voltage Resistors	MHR_PA/MHR_SA	O			Yes	Yes	
● R Networks	RGLD/RGLE/RGSD	O			Yes	Yes	
● Trimmer Potentiometers	SMD Open Type 2mm Size	PVA2	O		Yes	Yes	
		PVZ2	O		Yes	Yes	
SMD Open Type 3mm Size	PVZ3	O			Yes	Yes	
	PVA3	O			Yes	Yes	
	PVS3	O			Yes	Yes	
SMD Dust Proof Type 12mm Size (Rotary Position Sensor)	SV01	O			Yes	Yes	
SMD Sealed Type 2mm Size	PVF2	O			Yes	Yes	
SMD Sealed Type 3mm Size	PVG3_A01			O			Alternative : PVG3_C01
	PVG3_C01	O			Yes	Yes	
SMD Sealed Type 4mm Size	PVM4_A/B01			O			Alternative : PVM4_C/D01
	PVM4_C/D01	O			Yes	Yes	
SMD Sealed Type Multi Turns	PVG5_A01			O			Alternative : PVG5_C01
	PVG5_C01	O			Yes	Yes	
	PV01_A01			O			Alternative : PV01_C01
	PV01_C01	O			Yes	Yes	
Lead Sealed Type Single Turn	PVC6_A01			O			Alternative : PVC6_C01
	PVC6_C01	O			Yes	Yes	
	PV32	O			Yes	Yes	
	PV34_A01			O			Alternative : PV34_C01
Lead Sealed Type Multi Turns	PV34_C01	O			Yes	Yes	
	PV12	O			Yes	Yes	
	PV22_A01			O			Alternative : PV22_C01
	PV22_C01	O			Yes	Yes	
	PV23_A01			O			Alternative : PV23_C01
	PV23_C01	O			Yes	Yes	
	PV36_A01			O			Alternative : PV36_C01
	PV36_C01	O			Yes	Yes	
	PV37_A01			O			Alternative : PV37_C01
PV37_C01	O			Yes	Yes		

3 Coils/Delay Lines

Product Names	Part Number	Available	Available on limited P/N	Not Available	Sample	Mass Production	Notice
● Chip Coils	for High Frequency Horizontal Winding	LQW15A	O			Yes	Yes
		LQW18A	O			Yes	Yes
	for High Frequency Vertical Winding	LQW2BH	O			Yes	Yes
		LQW31H	O			Yes	Yes
	for High Frequency Vertical Winding Ferrite Type	LQH31H	O			Yes	Yes
	for High Frequency Monolithic Type	LQG15H	O			Yes	Yes
		LQG18H	O			Yes	Yes
	for High Frequency Film Type	LQP03T	O			Yes	Yes
		LQP15T	O			Yes	Yes
		LQP15M	O			Yes	Yes
		LQP18M	O			Yes	Yes
	for General Use Winding Type	LQH31M	O			Yes	Yes
		LQH32M	O			Yes	Yes
		LQH43M	O			Yes	Yes
	DC-DC Converter Winding Type	LQH2MC	O			Yes	Yes
	for General Use Monolithic Type	LQM18N	O			Yes	Yes
		LQM21N	O			Yes	Yes
	for Choke Winding Type	LQH31C	O			Yes	Yes
		LQH32C	O			Yes	Yes
		LQH43C	O			Yes	Yes
for Choke Magnetic Shielded Type	LQH3KS	O			Yes	Yes	
for Choke Monolithic Type	LQM21D/F	O			Yes	Yes	
	LQM31F	O			Yes	Yes	
for Choke Large Current Type	LQH55D	O			Yes	Yes	
	LQH66S	O			Yes	Yes	
● Chip Multilayer Delay Lines	LDH31	O			Yes	Yes	
	LDH32	O			Yes	Yes	
	LDH54	O			Yes	Yes	
	LDH65	O			Yes	Yes	
	LDHA2	O			Yes	Yes	
● Antenna Coil	MSA	O			Yes	Yes	

4 Noise Suppression Products / (EMIFIL®)

Product Names	Part Number	Available	Available on limited P/N	Not Available	Sample	Mass Production	Notice
● EMIFIL® (SMD) Inductor Type	Chip Ferrite Beads	BLM03	O			Yes	Yes
		BLM15	O			Yes	Yes
		BLM18	O			Yes	Yes
		BLM21 (BLM21BD222SN1/BD272SN1)	O			Yes	Yes
		BLM31 (BLM31AF700SN1)	O			Yes	Yes
		BLM41	O			Yes	Yes
	for GHz Noise Chip Ferrite	BLM18H/BLM18E/BLM18G	O			Yes	Yes
	Chip Ferrite Beads Arrays	BLA2A	O			Yes	Yes
		BLA31	O			Yes	Yes
	● EMIFIL® (SMD) Capacitor Type	Chip EMIFIL®	NFM18C	O			Yes
NFM21C			O			Yes	Yes
NFM3DC			O			Yes	Yes
NFM41C			O			Yes	Yes

Continued on the following page.

Product Names	Part Number	Available	Available on limited P/N	Not Available	Sample	Mass Production	Notice
Chip EMIFIL® for Large Current	NFM18P	O			Yes	Yes	
	NFM21P	O			Yes	Yes	
	NFM3DP	O			Yes	Yes	
	NFM41P	O			Yes	Yes	
	NFM55P			O	Aug. 2004	Oct. 2004	
Chip EMIFIL® Arrays	NFA31C	O			Yes	Yes	
● EMIFIL® (SMD) LC Combined Type							
T Type EMIFIL®	NFE31P	O			Yes	Yes	
	NFE61P/NFE61H	O			Yes	Yes	
Winding Type	NFW31S	O			Yes	Yes	
Monolithic Type	NFL18ST	O			Yes	Yes	
	NFL18SP	O			Yes	Yes	
	NFL21S	O			Yes	Yes	
● Chip EMIFIL® for LC Combined Type Arrays	NFA21S	O			Yes	Yes	
● Chip EMIFIL® RC Combined Type							
Chip EMIFIL®	NFR21G	O			Yes	Yes	
Chip EMIFIL® Arrays	NFA31G	O			Yes	Yes	
● Chip Common Mode Choke Coils							
Film Type	DLP11S	O			Yes	Yes	
	DLP31S	O			Yes	Yes	
Film Type Array	DLP2AD	O			Yes	Yes	
	DLP31D	O			Yes	Yes	
Monolithic Type	DLM11G	O			Yes	Yes	
	DLM2HG	O			Yes	Yes	
Winding Type	DLW21S	O			Yes	Yes	
	DLW21H	O			Yes	Yes	
	DLW31S	O			Yes	Yes	
Winding Type for Large Current	DLW5AH	O			Yes	Yes	
	DLW5BS	O			Yes	Yes	
	DLW5BT	O			Yes	Yes	
● Lead EMIFIL® Capacitor Type							
for General Small Type	DSN6/DSS6	O			Yes	Yes	
Broad Band Type	DSN9	O			Yes	Yes	
	DSS9	O			Yes	Yes	
	DST9	O			Yes	Yes	
Heavy Duty Type	DSN9H	O			Yes	Yes	
	DST9H	O			Yes	Yes	
● Lead EMIFIL® Inductor Type							
	BL03	O			Yes	Yes	
	BL02	O			Yes	Yes	
	BL01	O			Yes	Yes	
● Lead EMIFIL® LC Combined Type	BNX	O			Yes	Yes	
● Lead Common Mode Choke Coils	PLT09H/PLT08C	O			Yes	Yes	
● EMIGUARD® (EMIFIL® with Varistor Function)							
Lead Type EMIGUARD®	VFR3V/VFS6V	O			Yes	Yes	
	VFS9V	O			Yes	Yes	
● AC Line Filters							
Common Mode Choke Coils	PLA10/PLH10	O			Yes	Yes	
	FKOB	O			Yes	Yes	
Hybrid Choke Coils	PLY10	O			Yes	Yes	
	PLY17	O			Yes	Yes	
● RC/C Modules			O				Please contact us for details.
● Microwave Absorbers	EA	O			Yes	Yes	
● Ferrite Cores	FS	O			Yes	Yes	

5 Resonators

Product Names	Part Number	Available	Available on limited P/N	Not Available	Sample	Mass Production	Notice
● CERALOCK® (MHz)							
Chip Type Three Terminals	CSTCE_G	O			Yes	Yes	
	CSTCE_V	O			Yes	Yes	
	CSTCG	O			Yes	Yes	
	CSTCW	O			Yes	Yes	
	CSTCV	O			Yes	Yes	
	CSTCR	O			Yes	Yes	
	CSTCC	O			Yes	Yes	
Chip Type Two Terminals	CSACW	O			Yes	Yes	
	CSACV	O			Yes	Yes	
Lead Type Three Terminals	CSTLS_G	O			Yes	Yes	
	CSTLS_X	O			Yes	Yes	
Lead Type Two Terminals	CSALS_X	O			Yes	Yes	
● CERALOCK® (kHz)							
Chip Type	CSBFB_J(700-1250kHz)	O			Yes	Yes	
	CSBFB_J(430-519kHz)	O			Yes	Yes	
Lead Type	CSBLA_J(700-1250kHz)	O			Yes	Yes	
	CSBLA_E(375-699kHz)	O			Yes	Yes	
● SAW Resonators	SARCC	O			Yes	Yes	

6 Piezoelectric Sound Components

Product Names	Part Number	Available	Available on limited P/N	Not Available	Sample	Mass Production	Notice
● Piezoelectric Diaphragms							
External Drive Types	7BB-12-9	O			Yes	Yes	
	7BB-15-6	O			Yes	Yes	
	7BB-20-3	O			Yes	Yes	
	7BB-20-6	O			Yes	Yes	
	7BB-20-6L0	O			Yes	Yes	
	7BB-27-4	O			Yes	Yes	
	7BB-27-4L0	O			Yes	Yes	
	7BB-35-3	O			Yes	Yes	
	7BB-35-3L0	O			Yes	Yes	
	7BB-41-2	O			Yes	Yes	
	7BB-41-2L0	O			Yes	Yes	
	7NB-31R2-1	O			Yes	Yes	
	Self Drive Types	7BB-20-6C	O			Yes	Yes
7BB-20-6CL0		O			Yes	Yes	
7BB-27-4C		O			Yes	Yes	
7BB-27-4CL0		O			Yes	Yes	
7BB-35-3C		O			Yes	Yes	
7BB-35-3CL0		O			Yes	Yes	
7BB-41-2C		O			Yes	Yes	
7BB-41-2CL0		O			Yes	Yes	
7SB-34R7-3C		O			Yes	Yes	

Continued on the following page.

Product Names	Part Number	Available	Available on limited P/N	Not Available	Sample	Mass Production	Notice
● Piezoelectric Sounders							
External Drive Types	PKM13EPYH4000-A0	O			Yes	Yes	
	PKM13EPYH4002-B0	O			Yes	Yes	
	PKM17EPP-2002-B0	O			Yes	Yes	
	PKM17EPPH4001-B0	O			Yes	Yes	
	PKM17EPPH4002-B0	O			Yes	Yes	
	PKM17EPT-4001-B0	O			Yes	Yes	
	PKM17EWH2001	O			Yes	Yes	
	PKM22EPH2001	O			Yes	Yes	
	PKM22EPH2002	O			Yes	Yes	
	PKM22EPH2003	O			Yes	Yes	
	PKM22EPPH2001-B0	O			Yes	Yes	
	PKM22EPPH2002-B0	O			Yes	Yes	
	PKM22EPPH4001-B0	O			Yes	Yes	
	PKM22EPPH4002-B0	O			Yes	Yes	
	PKM22EPPH4005-B0	O			Yes	Yes	
	PKM22EPPH4007-B0	O			Yes	Yes	
	PKM22EPPH4012-B0	O			Yes	Yes	
	PKM22EPTH2001-B0	O			Yes	Yes	
	PKM17EWH4000	O			Yes	Yes	
	PKLCS1212E4001-R1	O			Yes	Yes	
	PKLCS1212E40A1-R1	O			Yes	Yes	
Self Drive Types	PKM24SPH3801	O			Yes	Yes	
	PKM24SPH3805	O			Yes	Yes	
	PKM24SPH3807	O			Yes	Yes	
	PKM24SPH3810	O			Yes	Yes	
	PKM30SPTH2001-B0	O			Yes	Yes	
	PKM30SPTH2501-B0	O			Yes	Yes	
● Piezoelectric Buzzers	PKB24SPCH3601-B0	O			Yes	Yes	
	PKB24SWH3301	O			Yes	Yes	
	PKB30SPCH2001-B0	O			Yes	Yes	
	PKB30SPCH3001-B0	O			Yes	Yes	
● Piezoelectric Ringers (PIEZORINGER®)	PKM33EPH1201C	O			Yes	Yes	
	PKM33EPH1202C	O			Yes	Yes	
	PKM34EWH1101C	O			Yes	Yes	
	PKM34EWH1201C	O			Yes	Yes	
	PKM44EWH1001C	O			Yes	Yes	
● Piezoelectric Receiver	PKLCD1212R1000-R1	O			Yes	Yes	
● Piezoelectric Speakers (CERAMITONE®)	VSB35EWH0701B	O			Yes	Yes	
	VSB50EWH0301B	O			Yes	Yes	

7 Filters for Communication Equipment

Product Names	Part Number	Available	Available on limited P/N	Not Available	Sample	Mass Production	Notice
● Antennas / Duplexers							
Dielectric Duplexers (GIGAFIL®)	DFY	O			Yes	Yes	
SAW Duplexers	SAYHS/SAYDV/SAYCS	O			Yes	Yes	
● for RF/Local							
Dielectric Band Pass Filters (GIGAFIL®)	DFCB	O			Yes	Yes	
	DFCH	O			Yes	Yes	
SAW Filters	SAFEK/SAFEH/SAWES(CSP)	O			Yes	Yes	
	SAWSG/SAFSE/SAFSD(SS22)	O			Yes	Yes	
	SAWSL/SAWSN/SAWSP(SS32)	O			Yes	Yes	
	SAFCC/SAWCD(SC33)	O			Yes	Yes	

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Product Names	Part Number	Available	Available on limited P/N	Not Available	Sample	Mass Production	Notice
Chip Multilayer LC Filters (BPF)	LFB21_SG	O			Yes	Yes	
	LFB2H_SG7	O			Yes	Yes	
	LFB31_SN/SG/SP/SL	O			Yes	Yes	
	LFB32_SB/SJ/SK/SN/SC/SQ	O			Yes	Yes	
	LFB32_SA	O			Yes	Yes	
Chip Multilayer LC Filters (LPF)	LFL15_TC	O			Yes	Yes	
	LFL18_TC	O			Yes	Yes	
	LFL21_TC	O			Yes	Yes	
Chip Multilayer LC Filters (HPF)	LFH32_RA	O			Yes	Yes	
Chip Multilayer Diplexers	LFD21_DP	O			Yes	Yes	
	LFD31_DP	O			Yes	Yes	
Chip Multilayer LC Filters (Trap)	LFE21_HA	O			Yes	Yes	
● for IF							
Ceramic Filter CERAFIL®	CFXCE	O			Yes	Yes	
	CFXCD	O			Yes	Yes	
	CFXCA	O			Yes	Yes	
	CFUKG/CFUKF	O			Yes	Yes	
	SFPKA	O			Yes	Yes	
	CFWKA	O			Yes	Yes	
	CFULB	O			Yes	Yes	
	CFULA	O			Yes	Yes	
	CFWLB	O			Yes	Yes	
	CFWLA	O			Yes	Yes	
	SFECS	O			Yes	Yes	
	SFECD	O			Yes	Yes	
	SFSCE	O			Yes	Yes	
Ceramic Discriminators	CDBC	O			Yes	Yes	
	CDBLA/CDBLB	O			Yes	Yes	
	CDSCB	O			Yes	Yes	
Chip LC Filter (Balance Balance Type)	LFB32_SH	O			Yes	Yes	
Chip LC Filter (Balance Unbalance Type)	LFB32_SQ	O			Yes	Yes	
SAW Filter	SAFCC/SAFCD(SC33)	O			Yes	Yes	
	SAFCP(SC35)	O			Yes	Yes	
	SAFCJ(SC44)	O			Yes	Yes	
	SAFCG(SC44)	O			Yes	Yes	
	SAFCT(SC57)	O			Yes	Yes	
	SAFCU(SC59)	O			Yes	Yes	
	SAFJA/SAFJB	O			Yes	Yes	
	MKFKB(MC45)	O			Yes	Yes	

8 Microwave Components

Product Names	Part Number	Available	Available on limited P/N	Not Available	Sample	Mass Production	Notice	
● Isolators	CES30	O			Yes	Yes		
	CES40	O			Yes	Yes		
● Chip Multilayer Hybrid Couplers	Hybrid Dividers	LDD21	O		Yes	Yes		
	Couplers with Integrated LPF	LDC21	O		Yes	Yes		
	Directional Coupler	LDC18	O			Yes	Yes	
		LDC21	O			Yes	Yes	
	3dB Hybrid	LDC31	O			Yes	Yes	
		LDC32	O			Yes	Yes	
		LDC43	O			Yes	Yes	
		LDC55	O			Yes	Yes	
● Chip Multilayer Hybrid Baluns	LDB18	O			Yes	Yes		
	LDB21	O			Yes	Yes		

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Product Names	Part Number	Available	Available on limited P/N	Not Available	Sample	Mass Production	Notice	
● Dielectric Resonators (RESOMICS®) TE01δ Mode (Monoblock Type)	DRD	O			Yes	Yes		
	DRT	O			Yes	Yes		
	DRU	O			Yes	Yes		
	DRY	O			Yes	Yes		
	TEM Mode (Coaxial Resonator)	DRR020 (Copper)	O			Yes	Yes	
		DRR030 (Copper)	O			Yes	Yes	
		DRR040 (Copper)	O			Yes	Yes	
		DRR060 (Copper)	O			Yes	Yes	
		DRR040 (Silver)			O	Yes	Oct. 2004	
		DRR060 (Silver)			O	Yes	Oct. 2004	
DRP (Microwave Dielectric Substrate)		O			Yes	Yes		
● Chip Multilayer Antennas	LDA31	O			Yes	Yes		
● Chip Dielectric Antennas	ANCM12G45SAA072	O			Yes	Yes		
	ANCM12G45SAA075	O			Yes	Yes		
	ANCW12G45SAA117	O			Yes	Yes		
● Coaxial Connectors	MM9329-2700	O			Yes	Yes		
	MM7329-2702	O			Yes	Yes		
	MM7329-2700	O			Yes	Yes		
● Coaxial Connectors with Switches	MM8430-2600	O			Yes	Yes		
● High Frequency Microchip Capacitors	CLB	O			Yes	Yes		

9 Microwave Modules

Product Names	Part Number	Available	Available on limited P/N	Not Available	Sample	Mass Production	Notice
● RF Diode Switches RF Diode Switches SWITCHPLEXER®	LMSW43	O			Yes	Yes	
	LMSP43	O			Yes	Yes	
	LMSP54A	O			Yes	Yes	
	LMSP54C	O			Yes	Yes	
	LMSP7C	O			Yes	Yes	
● Triplexers with Integrated SAW Filters	LMTP33	O			Yes	Yes	
● VCOs	MQL		O		Yes	Yes	Please contact us for details.
	MQK		O		Yes	Yes	Please contact us for details.
	MQE95		O		Yes	Yes	Please contact us for details.
	MQR		O		Yes	Yes	Please contact us for details.
	MQW2		O		Yes	Yes	Please contact us for details.
	MQW5		O		Yes	Yes	Please contact us for details.
● PLL Modules	HFQC80		O		Yes	Yes	Please contact us for details.
	HFQD80		O		Yes	Yes	Please contact us for details.
	HFQS57		O		Yes	Yes	Please contact us for details.
	HFQW80		O		Yes	Yes	Please contact us for details.
● TCXO	HFX323QN		O		Yes	Yes	Please contact us for details.
	HFX42Q		O		Yes	Yes	Please contact us for details.

10 Filters for Audio Visual Equipment

Product Names	Part Number	Available	Available on limited P/N	Not Available	Sample	Mass Production	Notice
● CERAFIL® for AM	Chip Type	PFWCC	O		Yes	Yes	
		SFPKA	O		Yes	Yes	
	Lead Type	PFSLF	O		Yes	Yes	
		PFWLF	O		Yes	Yes	
		SFULA	O		Yes	Yes	
		SFZLA/SFPLA	O		Yes	Yes	
		CFULA	O		Yes	Yes	
CFWLA	O		Yes	Yes			
● CERAFIL® for Search Stop Signal Detection	BFULA	O		Yes	Yes		
● CERAFIL® for FM	Chip Type	SFECF	O		Yes	Yes	
		SFECD	O		Yes	Yes	
		SFECS	O		Yes	Yes	
		SFEKV	O		Yes	Yes	
	Lead Type	SFELF/SFELG	O		Yes	Yes	
		SFVLF	O		Yes	Yes	
		SFKLF	O		Yes	Yes	
SFTLF		O		Yes	Yes		
● Discriminators for FM	Chip Type	CDSCB	O		Yes	Yes	
	Lead Type	CDALF	O		Yes	Yes	
● CERAFIL® for TV/VCR	Chip Type	SFSKA	O		Yes	Yes	
	Lead Type	SFSRA	O		Yes	Yes	
● Discriminators for TV/VCR	CDSRF	O		Yes	Yes		
● Traps for TV/VCR	Ceramic Traps	TPSKA	O		Yes	Yes	
		TPWKA	O		Yes	Yes	
		TPWRF/TPTRF	O		Yes	Yes	
		TPSRA	O		Yes	Yes	
		TPSRF	O		Yes	Yes	
	BGS Traps	MKTGA	O		Yes	Yes	
	● SAW Filters for TV/VCR	SAFHM	O		Yes	Yes	
SAFJA		O		Yes	Yes		
● SAW Filters for Digital Broadcasting	SAFHM	O		Yes	Yes		
	SAFJB	O		Yes	Yes		
● SAW Filters for TV/VCR Dual Type	SAWKE	O		Yes	Yes		
	SAWHM	O		Yes	Yes		

11 Products for Video Equipment

Product Names	Part Number	Available	Available on limited P/N	Not Available	Sample	Mass Production	Notice
● Tuners for CATV/Modem	CAPTU			O	Dec. 2004	Dec. 2004	
	TUMUDT/TUMUDF			O	Dec. 2004	Dec. 2004	
● Flyback Transformers	Flyback Transformers	MSU	O				Please contact us for details.
	Primary Control System Modules	MSP	O				Please contact us for details.
	High Voltage CR Blocks	MSC	O				Please contact us for details.
● Focus Adjusting Resistors	MHF	O			Yes	Yes	

12 Power Supplies

Product Names	Part Number	Available	Available on limited P/N	Not Available	Sample	Mass Production	Notice
● Switching Power Supplies	MPS/MPW		O				Please contact us for details.
● Ultra Low Profile Switching Power Supplies	MPA/MPN		O				Please contact us for details.
● DC-DC Converters	HFP/MPD		O				Please contact us for details.

13 Functional Modules/Hybrid Ics

Product Names	Part Number	Available	Available on limited P/N	Not Available	Sample	Mass Production	Notice
● Cut-off Module for CRT Display	H8D			O	Dec. 2004	Dec. 2004	
● High Frequency Active Filter	AFE/AFM/AFL		O		Dec. 2004	Dec. 2004	

14 Sensors

Product Names	Part Number	Available	Available on limited P/N	Not Available	Sample	Mass Production	Notice
● POSISTOR® for Overheat Sensing							
Chip Type	PRF18	O			Yes	Yes	
	PRF21	O			Yes	Yes	
Lead Type	PTFL/PTFM	O			Yes	Yes	
● NTC Thermistors for Temperature Sensor	NTS	O			Yes	Yes	
● Pyroelectric Infrared Sensors	IRA	O			Yes	Yes	
● Ultrasonic Sensors							
Water Proof (Connector)	MA40E8/MA40E9/MA40M			O			Please contact us for details.
Water Proof (Leaded)	MA40E7			O			Please contact us for details.
Open Structure	MA40B/MA40S			O			Please contact us for details.
High Frequency	MA200A1/MA400A1/MA80A1		O				Please contact us for details.
● Shock Sensors							
	PKGS-00LD	O			Yes	Yes	
	PKGS-90LD	O			Yes	Yes	
	PKGS-00MF/25MF	O			Yes	Yes	
	PKGS-25NB	O			Yes	Yes	
● Piezoelectric Gyroscopes (GYROSTAR®)	ENC-03M	O			Yes	Yes	
● Rotary Position Sensor							
	PVS1A	O			Yes	Yes	
	PVS1L	O			Yes	Yes	
● Non Contact Potentiometers	LP			O			Please contact us for details.
● Rotary Sensors	FR			O			Please contact us for details.
● Magnetic Pattern Recognition Sensors	BS			O			Please contact us for details.
● Electric Potential Sensors	PKE			O			Please contact us for details.

15 Optical Products

Product Names	Part Number	Available	Available on limited P/N	Not Available	Sample	Mass Production	Notice
● Optical Transceiver	WT	O			Yes	Yes	

⚠ Note:

1. Export Control

(For customers outside Japan)

Murata products should not be used or sold for use in the development, production, stockpiling or utilization of any conventional weapons or mass-destructive weapons (nuclear weapons, chemical or biological weapons, or missiles), or any other weapons.

(For customers in Japan)

For products which are controlled items subject to the "Foreign Exchange and Foreign Trade Law" of Japan, the export license specified by the law is required for export.

2. Please contact our sales representatives or product engineers before using the products in this catalog for the applications listed below, which require especially high reliability for the prevention of defects which might directly damage to a third party's life, body or property, or when one of our products is intended for use in applications other than those specified in this catalog.

- ① Aircraft equipment
- ② Aerospace equipment
- ③ Undersea equipment
- ④ Power plant equipment
- ⑤ Medical equipment
- ⑥ Transportation equipment (vehicles, trains, ships, etc.)
- ⑦ Traffic signal equipment
- ⑧ Disaster prevention / crime prevention equipment
- ⑨ Data-processing equipment
- ⑩ Application of similar complexity and/or reliability requirements to the applications listed in the above

3. Product specifications in this catalog are as of August 2004. They are subject to change or our products in it may be discontinued without advance notice. Please check with our sales representatives or product engineers before ordering. If there are any questions, please contact our sales representatives or product engineers.

4. This catalog has only typical specifications because there is no space for detailed specifications. Therefore, please approve our product specifications or transact the approval sheet for product specifications before ordering. Especially, please read rating and ⚠CAUTION (for storage, operating, rating, soldering, mounting and handling) in them to prevent smoking and/or burning, etc.

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7. No ozone depleting substances (ODS) under the Montreal Protocol are used in our manufacturing process.

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