

Choke coil For DC motors EMC



AML series



FEATURES

- Miniaturization by high saturation magnetic flux density of ferrite cores used in-house development
- Mount possible terminal STRUCTURE to a motor drive digital
- Correspond to onboard requiring quality
- Having excellent high-frequency characteristics, and eliminate noise of wide frequency bands

APPLICATION

- The noise removing circuit of on - board - DC motor
Electronically controlled throttle, power seat motor, variable valve controller ABS, electric power steering, blow Wow, an air pump, etc.
- Support of the automotive quality requirements

PART NUMBER CONSTRUCTION

AML	04	S	15	-	4R0	M	6R0	-	S	1
Series name	Max OD (mm)	Category (optional)	Length (mm)		Inductance (μH)	Inductance tolerance	Rated current (A)		Terminal type	Internal code

PRODUCT LINEUP

Series name	Width (mm)	Length (mm)	Wire gage (mm)	Inductance (μH)typ.	Rdc (mΩ)max.	Weight (g)	Rated current (A)max.
AML04A14-2R2M6R5-S1	4.0	14.0	0.65	2.2	10	0.9	6.5
AML04B13-2R3M6R5-S1	4.5	13.0	0.65	2.3	15	1.0	6.5
AML04B16-4R6M6R0-S1	4.5	16.0	0.65	4.6	20	1.4	6.0
AML0615-2R9M7R5-S1	6.0	15.0	0.85	2.9	12	2.3	7.5
AML0618-4R4M7R2-S1	6.0	17.5	0.85	4.4	14	2.7	7.2
AML0620-5R9M6R8-S1	6.0	20.0	0.85	5.9	16	3.2	6.8
AML0820-3R7M120-S1	7.7	20.0	1.2	3.7	7.7	5.4	12.0
AML0925-8R0M110-S1	8.5	25.0	1.1	8.0	13	7.5	11.0
AML1025-1R9M240-S1	9.7	25.0	1.7	1.9	2.4	7.8	24.0
AML1330-4R7M250-S1	12.5	30.0	2.0	4.7	3.5	19.9	25.0

OPERATING TEMPERATURE RANGE

Temperature ranges	
Operating temperature* (°C)	Storage temperature** (°C)
-40 to 125	-40 to 125

* Operating temperature range includes self-temperature rise.

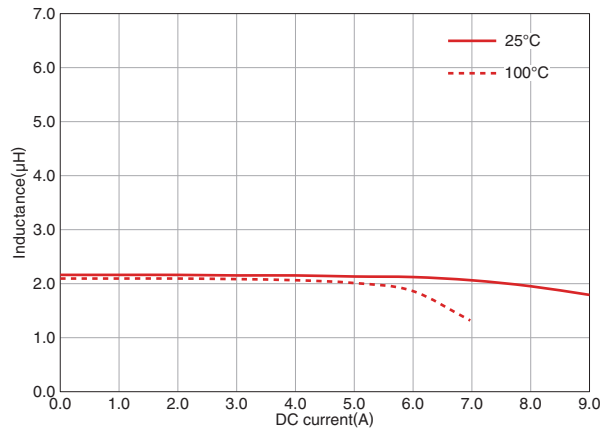
** The storage temperature range is for after the assembly.

AML04A type

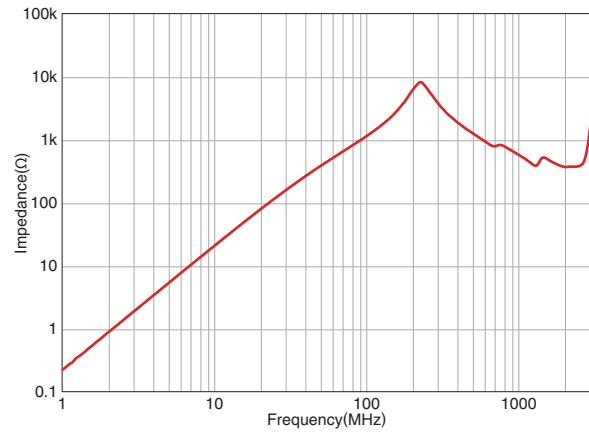
ELECTRICAL CHARACTERISTICS

Part No.	L (μH) $\pm 20\%$	DC resistance ($\text{m}\Omega$)max.	Rated current (A)max.
AML04A14-2R2M6R5-S1	2.2	10	6.5

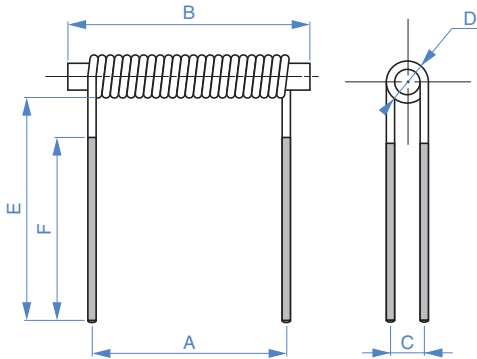
INDUCTANCE VS. DC BIAS CHARACTERISTICS



IMPEDANCE VS. FREQUENCY CHARACTERISTICS



SHAPE & DIMENSIONS



- * This product is designed so that the terminal shape can be adjusted by the customer when using it.
- If you would like individual terminal shapes, please contact our sales department or the place of purchase. After consultation, we will consider individual specifications.
- Check the vibration conditions in the actual usage environment and take necessary measures (fixing and reinforcement of the coil, etc.).

Dimensions in mm

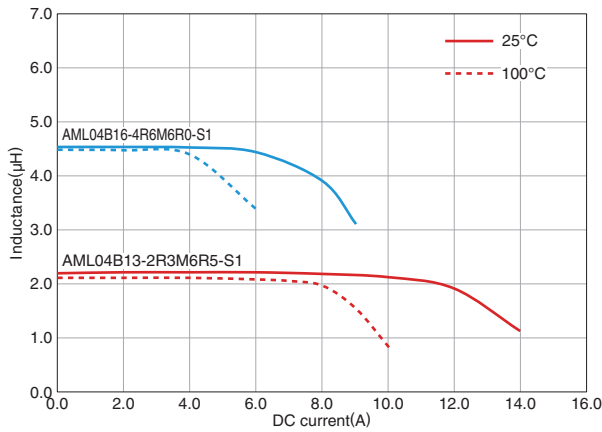
Part No.	A	B	C	D	E	F (Soldering portion)
AML04A13-2R2M6R5-S1	9.2	14.0	3.3	4.0	20.0	14min.

AML04B type

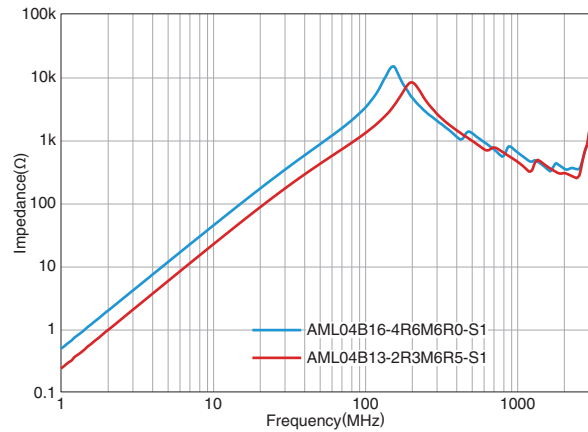
ELECTRICAL CHARACTERISTICS

Part No.	L (μH) $\pm 20\%$	DC resistance ($\text{m}\Omega$)max.	Rated current (A)max.
AML04B13-2R3M6R5-S1	2.3	15	6.5
AML04B16-4R6M6R0-S1	4.6	20	6.0

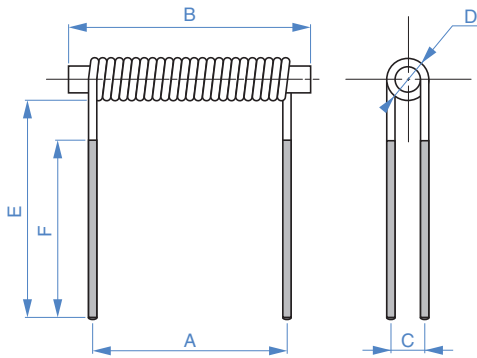
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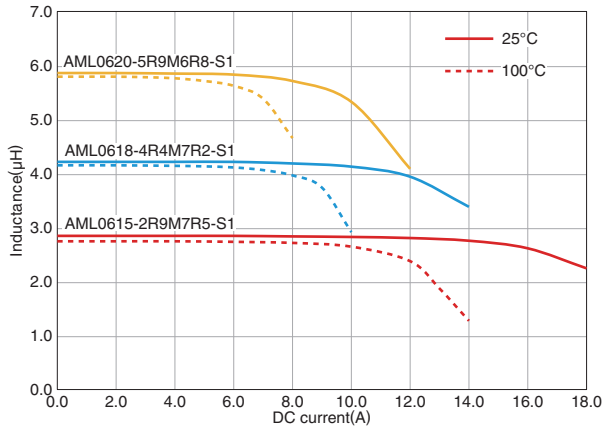
Part No.	A	B	C	D	E	F (Soldering portion)
AML04B13-2R3M6R5-S1	9.2	13.0	3.8	4.5	19.0	15min.
AML04B16-4R6M6R0-S1	13.4	16.0	3.8	4.5	19.0	15min.

AML06 type

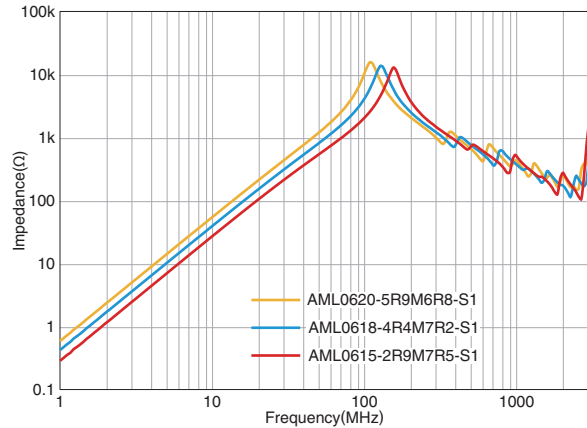
ELECTRICAL CHARACTERISTICS

Part No.	L (μH) $\pm 20\%$	DC resistance ($\text{m}\Omega$)max.	Rated current (A)max.
AML0615-2R9M7R5-S1	2.9	12	7.5
AML0618-4R4M7R2-S1	4.4	14	7.2
AML0620-5R9M6R8-S1	5.9	16	6.8

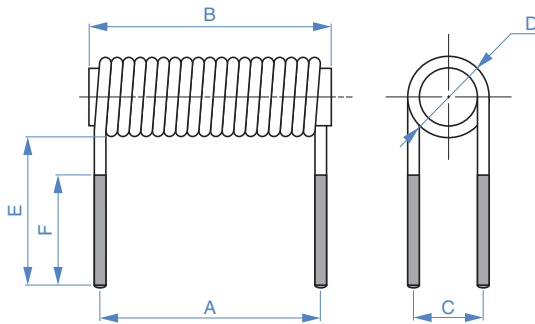
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Dimensions in mm

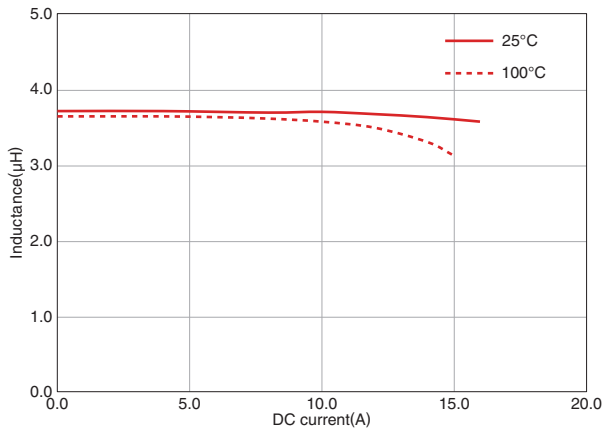
Part No.	A	B	C	D	E	F (Soldering portion)
AML0615-2R9M7R5-S1	13.0	15.0	5.1	6.0	18.0	15min.
AML0618-4R4M7R2-S1	15.7	17.5	5.1	6.0	18.0	15min.
AML0620-5R9M6R8-S1	18.5	20.0	5.1	6.0	18.0	15min.

AML08 type

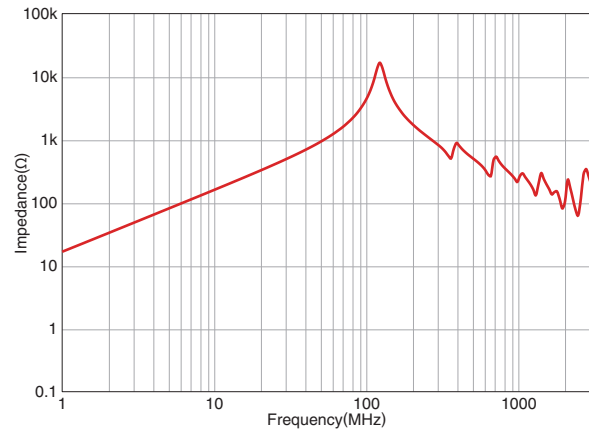
ELECTRICAL CHARACTERISTICS

Part No.	L (μH) $\pm 20\%$	DC resistance ($\text{m}\Omega$)max.	Rated current (A)max.
AML0820-3R7M120-S1	3.7	7.7	12.0

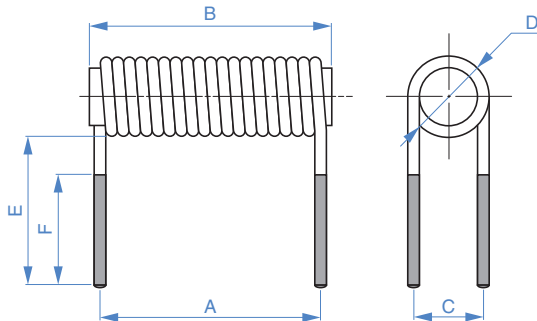
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Dimensions in mm

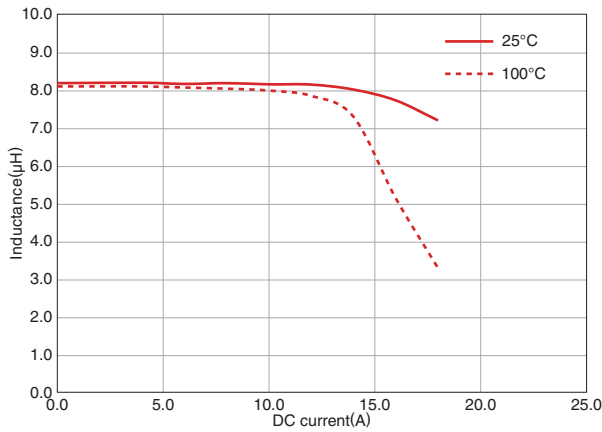
Part No.	A	B	C	D	E	F (Soldering portion)
AML0820-3R7M120-S1	19.0	20.0	6.4	7.7	16.0	12.0min.

AML09 type

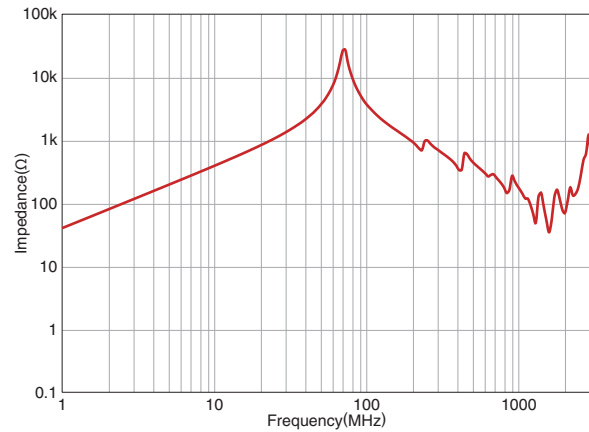
ELECTRICAL CHARACTERISTICS

Part No.	L (μH) $\pm 20\%$	DC resistance ($\text{m}\Omega$)max.	Rated current (A)max.
AML0925-8R0M110-S1	8.0	13	11.0

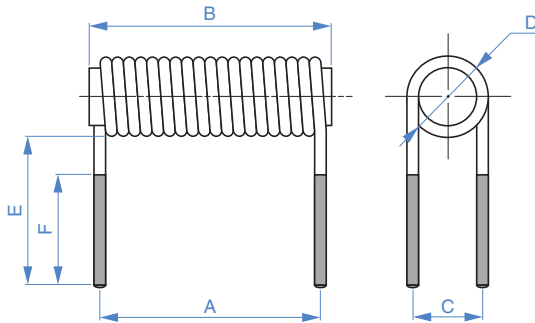
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Dimensions in mm

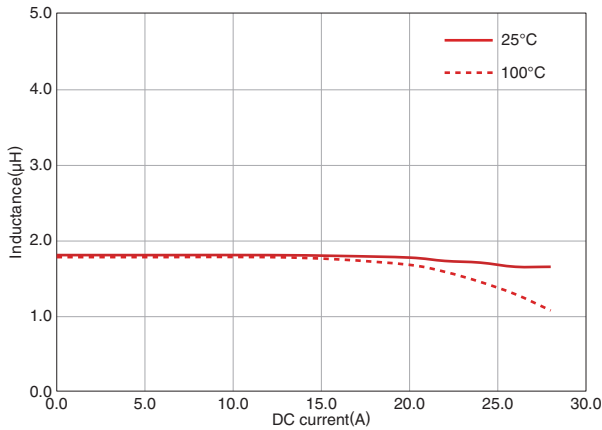
Part No.	A	B	C	D	E	F (Soldering portion)
AML0925-8R0M110-S1	22.8	25.0	7.3	8.5	16min.	11.0min.

AML10 type

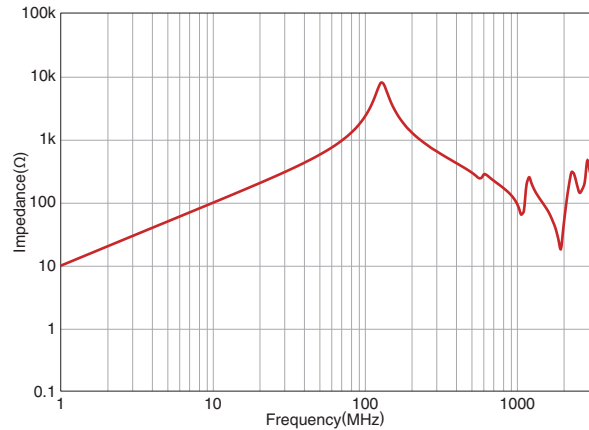
ELECTRICAL CHARACTERISTICS

Part No.	L (μH) $\pm 20\%$	DC resistance ($\text{m}\Omega$)max.	Rated current (A)max.
AML1025-1R9M240-S1	1.9	2.4	24.0

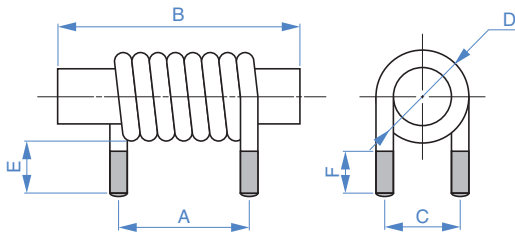
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Dimensions in mm

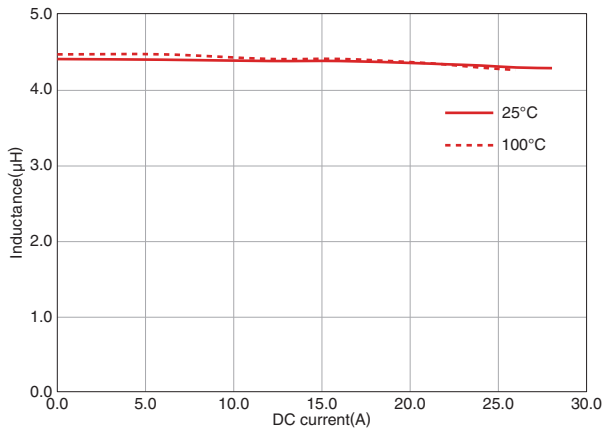
Part No.	A	B	C	D	E	F (Soldering portion)
AML1025-1R9M240-S1	13.1	25.0	8.0	9.7	8.0	4.0 min.

AML13 type

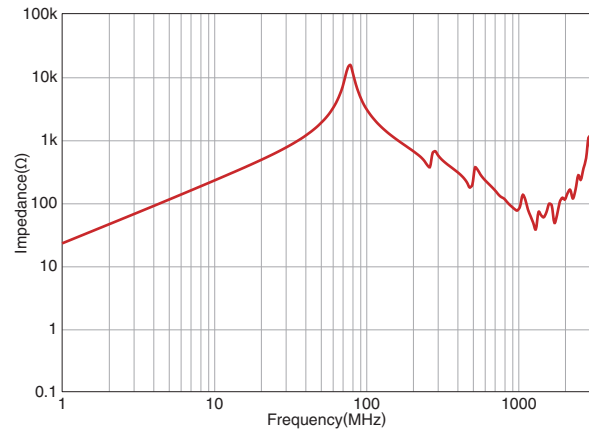
ELECTRICAL CHARACTERISTICS

Part No.	L (μH) $\pm 20\%$	DC resistance ($\text{m}\Omega$)max.	Rated current (A)max.
AML1330-4R7M250-S1	4.7	3.5	25.0

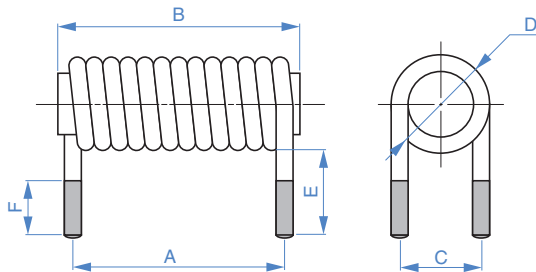
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Dimensions in mm

Part No.	A	B	C	D	E	F (Soldering portion)
AML1330-4R7M250-S1	25.9	30.0	10.4	13.0 max.	10.8	4.0 min.

REMINDERS FOR USING THESE PRODUCTS

Before using these products, be sure to request the delivery specifications.

SAFETY REMINDERS

Please pay sufficient attention to the warnings for safe designing when using this products.

REMINDERS

- The storage period is less than 12 months. Be sure to follow the storage conditions (temperature: 5 to 40°C, humidity: 10 to 75% RH or less).
If the storage period elapses, the soldering of the terminal electrodes may deteriorate.
- Do not use or store in locations where there are conditions such as gas corrosion (salt, acid, alkali, etc.).
- Soldering corrections after mounting should be within the range of the conditions determined in the specifications.
If overheated, a short circuit, performance deterioration, or lifespan shortening may occur.
- When embedding a printed circuit board where a product is mounted to a set, be sure that residual stress is not given to the product due to the overall distortion of the printed circuit board and partial distortion such as at screw tightening portions.
- Self heating (temperature increase) occurs when the power is turned ON, so the tolerance should be sufficient for the set thermal design.
- Carefully lay out the coil for the circuit board design of the non-magnetic shield type.
A malfunction may occur due to magnetic interference.
- Use a wrist band to discharge static electricity in your body through the grounding wire.
- Do not expose the products to magnets or magnetic fields.
- Do not use for a purpose outside of the contents regulated in the delivery specifications.
- The products described in this catalog are intended to be installed in automobiles or automotive electronic equipment (AV equipment, telecommunications equipment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement equipment, industrial robots) and to be used in automobiles (including the case where the said automotive product is mounted in a vehicle) or standard applications as general electronic equipment in automotive applications or standard applications as general electronic equipment in automotive applications in accordance with the scope and conditions described in this specification, while the said automotive or general electronic equipment including the said product is intended to be used in the usual operation and usage methods, respectively. Other than automotive or automotive products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality requires a more stringent level of safety or reliability, or whose failure, malfunction or defect could cause serious damage to society, person or property.
Please understand that we are not responsible for any damage or liability caused by use of the products in any of the applications below or for any other use exceeding the range or conditions set forth in this specification sheet.
If you intend to use the products in the applications listed below or if you have special requirements exceeding the range or conditions set forth in this specification, please contact us.

- (1) Aerospace/aviation equipment
- (2) Transportation equipment (electric trains, ships, etc.)
- (3) Medical equipment
- (4) Power-generation control equipment
- (5) Atomic energy-related equipment
- (6) Seabed equipment
- (7) Transportation control equipment

- (8) Public information-processing equipment
- (9) Military equipment
- (10) Electric heating apparatus, burning equipment
- (11) Disaster prevention/crime prevention equipment
- (12) Safety equipment
- (13) Other applications that are not considered general-purpose applications

When designing your equipment even for general-purpose applications, you are kindly requested to take into consideration securing protection circuit/device or providing backup circuits in your equipment.