FEATURES 特征

- High saturation current, low DCR.
  高饱和电流，低DCR
- Suitable for surface mounting equipment.
  适合表面贴装
- Close magnetic circuit design reduce leakage.
  闭合磁路结构设计，减少漏磁
- Operating Temp：-40℃~+125℃(Including self heating)
  工作温度范围:-40℃~+125℃(包括自身温度上升)

APPLICATIONS 用途

- Used for filtering, DC/DC conversion, and decoupling in industrial electronics such as security and instrumentation, as well as consumer electronics such as TVs, routers, and game consoles.
  用于安防、仪器仪表等工业电子和 TV、路由器、游戏机等消费电子的滤波、DC/DC 转换、去耦。

PART NUMBERING 产品型号

ARH	127	B	-	100	M	T	XE
①	②	③		④	⑤	⑥	⑦

① Series Name	
ARH	Wire Wound SMD Type Power Inductors (With Metallic Base)

② External Dimensions	
73	7.8x7.8x4.0
74	7.8x7.8x5.0
124	12.5x12.5x5.0
125	12.5x12.5x6.0
127	12.5x12.5x8.0
129	12.5x12.5x10.0

③ Product identification code
B

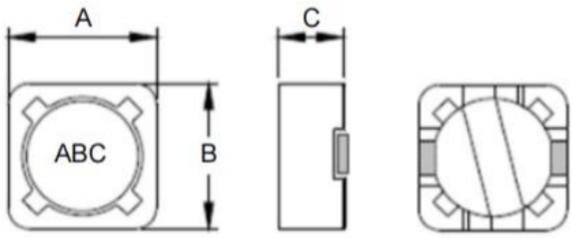
④ Inductance	
Code (example)	Nominal inductance［μH］
1R0	1.0uH
100	10uH
101	100uH

⑤ Inductance Tolerance	
N	30%
M	20%

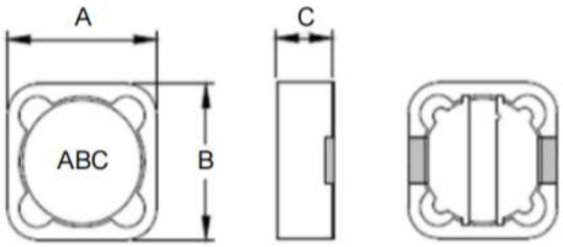
⑥ Packaging	
T	Tape & Reel

⑦ Special material code
XE

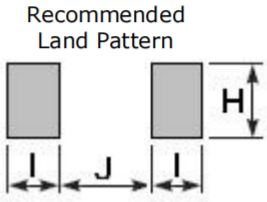
DIMENSIONS & RECOMMENDED LAND PATTERN 尺寸及推荐焊盘



ARH73B • ARH73B



ARH124B • ARH125B • ARH127B • ARH129B



Unit: mm

Dimensions				Recommended Land Pattern		
Series	A Max.	B Max.	C Max.	I Typ.	J Typ.	H Typ.
ARH73B	7.8	7.8	4.0	1.6	4.8	2.2
ARH74B	7.8	7.8	5.0	1.6	4.8	2.2
ARH124B	12.5	12.5	5.0	2.9	7.0	5.4
ARH125B	12.5	12.5	6.0	2.9	7.0	5.4
ARH127B	12.5	12.5	8.0	2.9	7.0	5.4
ARH129B	12.5	12.5	10.0	2.9	7.0	5.4

ELECTRICAL CHARACTERISTICS 特性规格表

● ARH73B Series

Part Number	Inductance (μH)	L Test Condition	DC resistance (Ω)	Rated Current(A)	Marking
		Hz,mV	Max.	Max.	
ARH73B-1R0NTXE	1.0±30%	100K,500	0.025	3.6	1R0
ARH73B-1R5NTXE	1.5±30%	100K,500	0.028	3	1R5
ARH73B-2R2NTXE	2.2±30%	100K,500	0.035	2.5	2R2
ARH73B-3R3NTXE	3.3±30%	100K,500	0.038	2	3R3
ARH73B-4R7MTXE	4.7±20%	100K,500	0.04	1.82	4R7
ARH73B-6R8MTXE	6.8±20%	100K,500	0.058	1.7	6R8
ARH73B-100MTXE	10±20%	1K,500	0.072	1.68	100
ARH73B-120MTXE	12±20%	1K,500	0.098	1.52	120
ARH73B-150MTXE	15±20%	1K,500	0.13	1.33	150
ARH73B-180MTXE	18±20%	1K,500	0.14	1.2	180
ARH73B-220MTXE	22±20%	1K,500	0.19	1.07	220
ARH73B-270MTXE	27±20%	1K,500	0.21	0.96	270
ARH73B-330MTXE	33±20%	1K,500	0.24	0.91	330

ELECTRICAL CHARACTERISTICS 特性规格表

ARH73B Series

Part Number	Inductance (μH)	L Test Condition	DC resistance (Ω)	Rated Current(A)	Marking
		Hz,mV	Max.	Max.	
ARH73B-390MTXE	39±20%	1K,500	0.32	0.77	390
ARH73B-470MTXE	47±20%	1K,500	0.36	0.76	470
ARH73B-560MTXE	56±20%	1K,500	0.47	0.68	560
ARH73B-680MTXE	68±20%	1K,500	0.52	0.61	680
ARH73B-820MTXE	82±20%	1K,500	0.69	0.57	820
ARH73B-101MTXE	100±20%	1K,500	0.79	0.5	101
ARH73B-121MTXE	120±20%	1K,500	0.89	0.49	121
ARH73B-151MTXE	150±20%	1K,500	1.27	0.43	151
ARH73B-181MTXE	180±20%	1K,500	1.45	0.39	181
ARH73B-221MTXE	220±20%	1K,500	1.65	0.35	221
ARH73B-271MTXE	270±20%	1K,500	2.31	0.32	271
ARH73B-331MTXE	330±20%	1K,500	2.62	0.28	331
ARH73B-391MTXE	390±20%	1K,500	2.94	0.26	391
ARH73B-471MTXE	470±20%	1K,500	4.18	0.24	471
ARH73B-561MTXE	560±20%	1K,500	4.67	0.22	561
ARH73B-681MTXE	680±20%	1K,500	5.73	0.19	681
ARH73B-821MTXE	820±20%	1K,500	6.54	0.18	821
ARH73B-102MTXE	1000±20%	1K,500	9.44	0.16	102

ARH74B Series

Part Number	Inductance (μH)	L Test Condition	DC resistance (Ω)	Rated Current(A)	Marking
		Hz,mV	Max.	Max.	
ARH74B-1R0NTXE	1.0±30%	100K,500	0.022	6	1R0
ARH74B-1R5NTXE	1.5±30%	100K,500	0.028	3.2	1R5
ARH74B-2R2MTXE	2.2±20%	100K,500	0.03	3	2R2
ARH74B-3R3MTXE	3.3±20%	100K,500	0.035	2.8	3R3
ARH74B-4R7MTXE	4.7±20%	100K,500	0.04	2.5	4R7
ARH74B-6R8MTXE	6.8±20%	100K,500	0.05	2.1	6R8
ARH74B-8R2MTXE	8.2±20%	100K,500	0.06	2	8R2
ARH74B-100MTXE	10±20%	1K,500	0.055	1.84	100
ARH74B-120MTXE	12±20%	1K,500	0.058	1.71	120
ARH74B-150MTXE	15±20%	1K,500	0.081	1.47	150
ARH74B-180MTXE	18±20%	1K,500	0.091	1.31	180
ARH74B-220MTXE	22±20%	1K,500	0.11	1.23	220
ARH74B-270MTXE	27±20%	1K,500	0.15	1.1	270
ARH74B-330MTXE	33±20%	1K,500	0.17	0.96	330
ARH74B-390MTXE	39±20%	1K,500	0.23	0.91	390
ARH74B-470MTXE	47±20%	1K,500	0.26	0.88	470
ARH74B-560MTXE	56±20%	1K,500	0.35	0.75	560
ARH74B-680MTXE	68±20%	1K,500	0.38	0.69	680

ELECTRICAL CHARACTERISTICS 特性规格表

● ARH74B Series

Part Number	Inductance (μH)	L Test Condition	DC resistance (Ω)	Rated Current(A)	Marking
		Hz,mV	Max.	Max.	
ARH74B-820MTXE	82±20%	1K,500	0.43	0.61	820
ARH74B-101MTXE	100±20%	1K,500	0.61	0.6	101
ARH74B-121MTXE	120±20%	1K,500	0.66	0.52	121
ARH74B-151MTXE	150±20%	1K,500	0.88	0.46	151
ARH74B-181MTXE	180±20%	1K,500	0.98	0.42	181
ARH74B-221MTXE	220±20%	1K,500	1.17	0.36	221
ARH74B-271MTXE	270±20%	1K,500	1.64	0.34	271
ARH74B-331MTXE	330±20%	1K,500	1.86	0.32	331
ARH74B-391MTXE	390±20%	1K,500	2.85	0.29	391
ARH74B-471MTXE	470±20%	1K,500	3.01	0.26	471

● ARH124B Series

Part Number	Inductance (μH)	L Test Condition	DC resistance (Ω)	Rated Current(A)	Marking
		Hz,mV	Max.	Max.	
ARH124B-1R0NTXE	1.0±30%	100K,250	0.012	10	1R0
ARH124B-1R5NTXE	1.5±30%	100K,250	0.013	8	1R5
ARH124B-2R2NTXE	2.2±30%	100K,250	0.019	7.5	2R2
ARH124B-3R3NTXE	3.3±30%	100K,250	0.023	6.8	3R3
ARH124B-4R7MTXE	4.7±20%	100K,250	0.029	5.7	4R7
ARH124B-5R6MTXE	5.6±20%	100K,250	0.034	5.3	5R6
ARH124B-6R8MTXE	6.8±20%	100K,250	0.037	4.9	6R8
ARH124B-8R2MTXE	8.2±20%	100K,250	0.04	4.7	8R2
ARH124B-100MTXE	10±20%	1K,250	0.05	4.5	100
ARH124B-120MTXE	12±20%	1K,250	0.054	4	120
ARH124B-150MTXE	15±20%	1K,250	0.057	3.2	150
ARH124B-180MTXE	18±20%	1K,250	0.06	3.1	180
ARH124B-220MTXE	22±20%	1K,250	0.07	2.9	220
ARH124B-270MTXE	27±20%	1K,250	0.08	2.8	270
ARH124B-330MTXE	33±20%	1K,250	0.11	2.7	330
ARH124B-390MTXE	39±20%	1K,250	0.132	2.1	390
ARH124B-470MTXE	47±20%	1K,250	0.15	1.9	470
ARH124B-560MTXE	56±20%	1K,250	0.19	1.8	560
ARH124B-680MTXE	68±20%	1K,250	0.22	1.5	680
ARH124B-820MTXE	82±20%	1K,250	0.26	1.3	820
ARH124B-101MTXE	100±20%	1K,250	0.308	1.2	101
ARH124B-121MTXE	120±20%	1K,250	0.38	1.1	121
ARH124B-151MTXE	150±20%	1K,250	0.53	0.95	151
ARH124B-181MTXE	180±20%	1K,250	0.62	0.85	181
ARH124B-221MTXE	220±20%	1K,250	0.7	0.8	221

ELECTRICAL CHARACTERISTICS 特性规格表

● ARH124B Series

Part Number	Inductance (μH)	L Test Condition	DC resistance (Ω)	Rated Current(A)	Marking
		Hz,mV	Max.	Max.	
ARH124B-271MTXE	270±20%	1K,250	0.876	0.6	271
ARH124B-331MTXE	330±20%	1K,250	0.99	0.5	331
ARH124B-471MTXE	470±20%	1K,250	1.3	0.4	471
ARH124B-561MTXE	560±20%	1K,250	1.4	0.4	561
ARH124B-681MTXE	680±20%	1K,250	1.7	0.35	681
ARH124B-821MTXE	820±20%	1K,250	1.9	0.35	821
ARH124B-102MTXE	1000±20%	1K,250	2.5	0.29	102

● ARH125B Series

Part Number	Inductance (μH)	L Test Condition	DC resistance (Ω)	Rated Current(A)	Marking
		Hz,mV	Max.	Max.	
ARH125B-1R0NTXE	1.0±30%	100K,250	0.01	8	1R0
ARH125B-1R5NTXE	1.5±30%	100K,250	0.012	7.5	1R5
ARH125B-2R2NTXE	2.2±30%	100K,250	0.015	7	2R2
ARH125B-3R3MTXE	3.3±20%	100K,250	0.015	6.5	3R3
ARH125B-4R7MTXE	4.7±20%	100K,250	0.017	5	4R7
ARH125B-5R6NTXE	5.6±30%	100K,250	0.018	5.5	5R6
ARH125B-6R8NTXE	6.8±30%	100K,250	0.02	5	6R8
ARH125B-8R2NTXE	8.2±30%	100K,250	0.022	4.5	8R2
ARH125B-100MTXE	10±20%	100K,250	0.025	4	100
ARH125B-150MTXE	15±20%	100K,250	0.03	3.3	150
ARH125B-180MTXE	18±20%	100K,250	0.034	3	180
ARH125B-220MTXE	22±20%	100K,250	0.05	2.8	220
ARH125B-270MTXE	27±20%	100K,250	0.051	2.3	270
ARH125B-330MTXE	33±20%	100K,250	0.063	2.1	330
ARH125B-390MTXE	39±20%	100K,250	0.068	2	390
ARH125B-470MTXE	47±20%	100K,250	0.08	1.8	470
ARH125B-560MTXE	56±20%	100K,250	0.11	1.7	560
ARH125B-680MTXE	68±20%	100K,250	0.12	1.5	680
ARH125B-820MTXE	82±20%	100K,250	0.14	1.4	820
ARH125B-101MTXE	100±20%	100K,250	0.16	1.3	101
ARH125B-121MTXE	120±20%	1K,250	0.17	1.1	121
ARH125B-151MTXE	150±20%	1K,250	0.23	1	151
ARH125B-181MTXE	180±20%	1K,250	0.29	0.9	181
ARH125B-221MTXE	220±20%	1K,250	0.4	0.8	221
ARH125B-271MTXE	270±20%	1K,250	0.46	0.75	271
ARH125B-331MTXE	330±20%	1K,250	0.51	0.68	331
ARH125B-391MTXE	390±20%	1K,250	0.69	0.65	391
ARH125B-471MTXE	470±20%	1K,250	0.77	0.58	471

ELECTRICAL CHARACTERISTICS 特性规格表

ARH125B Series

Part Number	Inductance (μH)	L Test Condition	DC resistance (Ω)	Rated Current(A)	Marking
		Hz,mV	Max.	Max.	
ARH125B-561MTXE	560±20%	1K,250	0.86	0.54	561
ARH125B-681MTXE	680±20%	1K,250	1.2	0.48	681
ARH125B-821MTXE	820±20%	1K,250	1.34	0.43	821
ARH125B-102MTXE	1000±20%	1K,250	2.1	0.4	102

ARH127B Series

Part Number	Inductance (μH)	L Test Condition	DC resistance (Ω)	Rated Current(A)	Marking
		Hz,mV	Max.	Max.	
ARH127B-1R0NTXE	1.0±30%	100K,500	0.007	9.8	1R0
ARH127B-1R5NTXE	1.5±30%	100K,500	0.01	9	1R5
ARH127B-2R2MTXE	2.2±20%	101K,500	0.0115	10	2R2
ARH127B-3R3MTXE	3.3±20%	100K,500	0.0135	7.5	3R3
ARH127B-4R7MTXE	4.7±20%	100K,500	0.0158	6.8	4R7
ARH127B-5R6MTXE	5.6±20%	100K,500	0.0176	6.7	5R6
ARH127B-6R8MTXE	6.8±20%	100K,500	0.02	6.6	6R8
ARH127B-8R2MTXE	8.2±20%	100K,500	0.02	5.9	8R2
ARH127B-100MTXE	10±20%	1K,500	0.0216	5.4	100
ARH127B-120MTXE	12±20%	1K,500	0.0243	4.9	120
ARH127B-150MTXE	15±20%	1K,500	0.027	4.5	150
ARH127B-180MTXE	180±20%	1K,500	0.0392	3.9	180
ARH127B-220MTXE	22±20%	1K,500	0.0432	3.6	220
ARH127B-270MTXE	27±20%	1K,500	0.0459	3.4	270
ARH127B-330MTXE	33±20%	1K,500	0.0648	3.2	330
ARH127B-390MTXE	39±20%	1K,500	0.0729	2.75	390
ARH127B-470MTXE	47±20%	1K,500	0.1	2.5	470
ARH127B-560MTXE	56±20%	1K,500	0.11	2.35	560
ARH127B-680MTXE	68±20%	1K,500	0.14	2.1	680
ARH127B-820MTXE	82±20%	1K,500	0.16	1.95	820
ARH127B-101MTXE	100±20%	1K,500	0.22	1.7	101
ARH127B-121MTXE	120±20%	1K,500	0.25	1.6	121
ARH127B-151MTXE	150±20%	1K,500	0.28	1.42	151
ARH127B-181MTXE	180±20%	1K,500	0.35	1.3	181
ARH127B-221MTXE	220±20%	1K,500	0.39	1.16	221
ARH127B-271MTXE	270±20%	1K,500	0.56	1.06	271
ARH127B-331MTXE	330±20%	1K,500	0.64	0.95	331
ARH127B-391MTXE	390±20%	1K,500	0.7	0.88	391
ARH127B-471MTXE	470±20%	1K,500	0.98	0.79	471
ARH127B-561MTXE	560±20%	1K,500	1.07	0.73	561
ARH127B-681MTXE	680±20%	1K,500	1.46	0.67	681

ELECTRICAL CHARACTERISTICS 特性规格表

ARH127B Series

Part Number	Inductance (μH)	L Test Condition	DC resistance (Ω)	Rated Current(A)	Marking
		Hz,mV	Max.	Max.	
ARH127B-821MTXE	820±20%	1K,500	1.64	0.6	821
ARH127B-102MTXE	1000±20%	1K,500	1.82	0.55	102
ARH127B-152MTXE	1500±20%	1K,500	2.4	0.5	152
ARH127B-222MTXE	2200±20%	1K,500	2.95	0.3	222

ARH129B Series

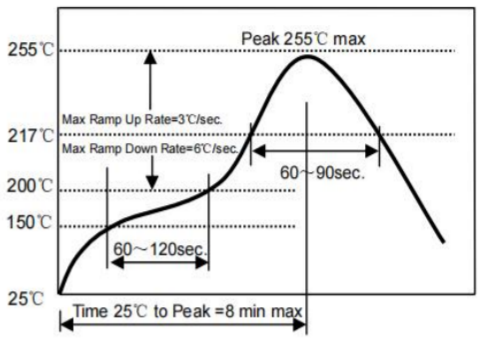
Part Number	Inductance (μH)	L Test Condition	DC resistance (Ω)	Rated Current(A)	Marking
		Hz,mV	Max.	Max.	
ARH129B-1R0NTXE	1.0±30%	100K,250	0.006	15	1R0
ARH129B-1R5NTXE	1.5±30%	100K,250	0.009	10	1R5
ARH129B-2R2NTXE	2.2±30%	100K,250	0.01	10	2R2
ARH129B-3R3NTXE	3.3±30%	100K,250	0.012	10	3R3
ARH129B-4R7MTXE	4.7±20%	100K,250	0.015	10	4R7
ARH129B-5R6MTXE	5.6±20%	100K,250	0.018	10	5R6
ARH129B-6R8MTXE	6.8±20%	100K,250	0.019	10	6R8
ARH129B-8R2MTXE	8.2±20%	100K,250	0.022	9.5	8R2
ARH129B-100MTXE	10±20%	1K,250	0.025	7	100
ARH129B-150MTXE	15±20%	1K,250	0.035	5	150
ARH129B-220MTXE	22±20%	1K,250	0.04	5	220
ARH129B-270MTXE	27±20%	1K,250	0.039	4.8	270
ARH129B-330MTXE	33±20%	1K,250	0.055	4.2	330
ARH129B-390MTXE	39±20%	1K,250	0.048	3.8	390
ARH129B-470MTXE	47±20%	1K,250	0.065	3.6	470
ARH129B-560MTXE	56±20%	1K,250	0.078	3	560
ARH129B-680MTXE	68±20%	1K,250	0.1	2.7	680
ARH129B-820MTXE	82±20%	1K,250	0.098	2.5	820
ARH129B-101MTXE	100±20%	1K,250	0.13	2.3	101
ARH129B-151MTXE	150±20%	1K,250	0.165	2.2	151
ARH129B-181MTXE	180±20%	1K,250	0.182	2.15	181
ARH129B-221MTXE	220±20%	1K,250	0.27	1.6	221
ARH129B-331MTXE	330±20%	1K,250	0.4	1.2	331
ARH129B-391MTXE	390±20%	1K,250	0.425	1.1	391
ARH129B-471MTXE	470±20%	1K,250	0.5	1	471
ARH129B-681MTXE	680±20%	1K,250	0.73	0.83	681
ARH129B-821MTXE	820±20%	1K,250	0.725	0.8	821
ARH129B-102MTXE	1000±20%	1K,250	1.65	0.7	102
ARH129B-152MTXE	1500±20%	1K,250	2.3	0.65	152
ARH129B-222MTXE	2200±20%	100K,250	2.5	0.65	222
ARH129B-332MTXE	3300±20%	1K,250	4.1	0.6	332

Recommended Soldering Technologies 回流焊建议

Reflowing Profile

- Preheat condition: 150~200℃/60~120sec.
- Allowed time above 217℃: 60~90sec.
- Max temp: 255℃
- Max time at max temp: 10sec.
- Solder paste: Sn/3.0Ag/0.5Cu
- Allowed Reflow time: 2x max

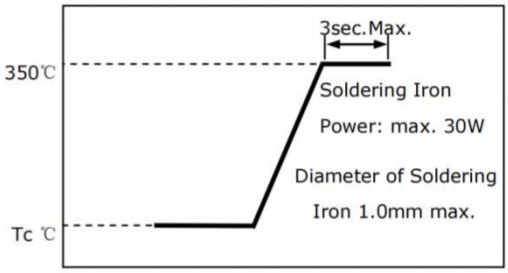
Note: The reflow profile in the above table is only for qualification and is not meant to specify board assembly profiles. Actual board assembly profiles must be based on the customer's specific board design, solder paste and process, and should not exceed the parameters as the Reflow profile shows.



Iron Soldering Profile

- Iron soldering power: Max.30W
- Pre-heating: 150 ℃ / 60sec.
- Soldering Tip temperature: 350℃Max.
- Soldering time: 3sec Max.
- Solder paste: Sn/3.0Ag/0.5Cu
- Max.1 times for iron soldering

Note: Take care not to apply the tip of the soldering iron to the terminal electrodes.



Safety Reminders 注意事项

SAFETY REMINDERS

- The storage period is within 12 months. Be sure to follow the storage conditions (temperature: 15 to 35℃, humidity: 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 chip is mounted to a set, be sure that residual stress is not given to the chip 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.
- This product is not designed for production processes involving ultrasonic welding, as high-frequency vibration may cause application issues such as product detachment and breakage.
- Carefully layout 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 listed on this catalog are intended for use in general electronic equipment, under a normal operation and use condition.

The Company shall not guarantee the suitability, performance, or quality for the following applications that require a high level of safety and reliability, or where equipment failure, malfunction, or abnormal operation may cause damage to human life, physical well-being, or property, and may have significant social impacts (hereinafter referred to as "specific applications").If you intend to use this product in the application scenarios listed below, or if you have special requirements exceeding the scope or conditions specified in each product catalog, please contact us.

(1) Aerospace/aviation equipment
(2) Transportation equipment (cars, 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.