

# DATA SHEET

## NEGATIVE TEMPERATURE COEFFICIENT MONITOR/SPS/FAX

NT series

RoHS compliant & Halogen free



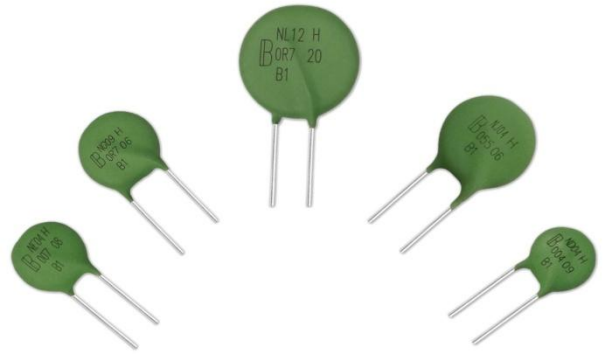
Product specification— February 27, 2019 V.0



## NTC Thermistors Data Sheet

### Features

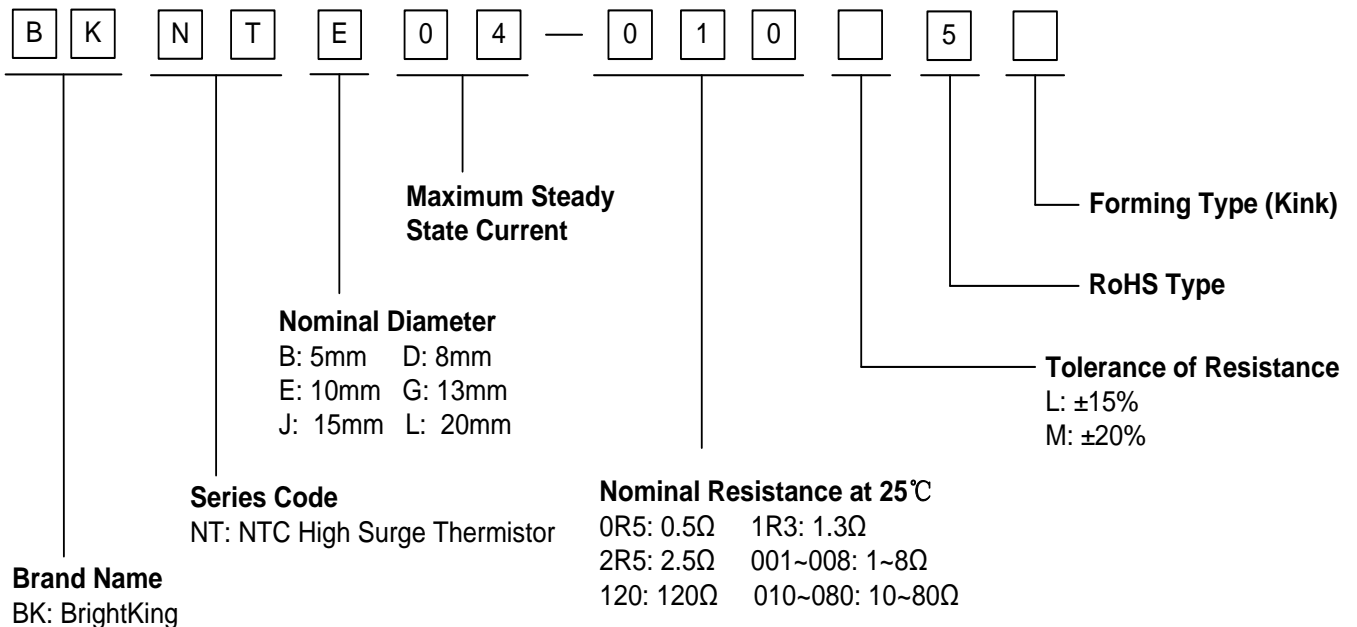
- Effectively restrain surge
- Low power loss under the stable state
- Over-current wide control range and fast response
- Thermal and electrical characteristics with high stability
- Wide range of electrical specifications
- RoHS& Halogen Free (HF) compliant
- Safety certification: UL: E133510



### Applications

- Monitor, Sps, Fax, Telecom, Adaptor etc.
- Power supply, Communications equipment etc.

### Part Number Code



**Marking**

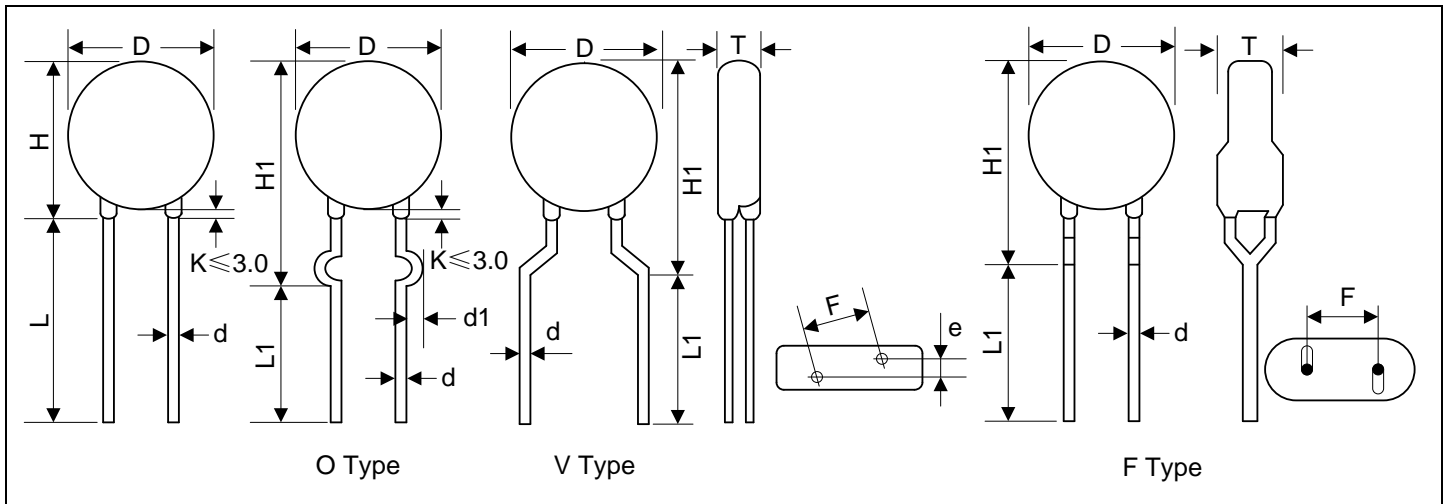
**5Φ Series:**

① Imax  
② Nominal Diameter  
③ Date Code: Year  
④ Resistance at 25°C  
⑤ Product Line Code  
⑥ Date Code: Week

**8Φ~20Φ Series:**

① Brightking Logo  
② Date code: Year  
③ Imax  
④ Nominal Diameter  
⑤ Date Code: Week  
⑥ Zero Power Resistance at 25°C  
⑦ Product Line Code

**Dimensions (Unit: mm)**



Disc Φ	D	H	H1	L (Min.)	L1 (Min.)	d (±0.02)	d1 (±0.4)	T	F (±0.8)	e (±0.5)
5(B)	5.0~7.0	/	5.5~10.0	/	15	0.60	1.4	3.5~5.5	5.0	1.6
8(D)	8.0~10.5	8.5~12.0	10.0~14.0	20.0	15	0.80	1.4	3.5~5.5	5.0	2.0
10(E)	10.0~13.0	10.5~14.0	13.0~18.0	20.0	15	0.80	1.4	3.5~6.0	5.0	2.1
13(G)	13.0~15.5	13.5~18.0	16.0~22.0	20.0	15	1.00	1.6	3.5~6.0	7.5	2.9
15(J)	15.0~17.5	15.5~21.0	18.0~25.0	20.0	15	1.00	1.6	4.0~6.5	7.5	3.1
20(L)	20.0~24.0	20.5~28.0	24.0~32.0	20.0	15	1.00	1.6	4.5~7.5	7.5	3.6

Remarks: "V" type lead is the default lead shape for 5D products, normal straight lead shape for others.

**Electrical Characteristics**

Nominal Diameter (mm)	Part Number	Zero Power Resistance at 25°C	Maximum Steady State Current at 25°C	Typical value		Recommend Capacitance 240Vac	Maximum Steady Power	Operating Temperature Range
				Thermal Time Constant	Thermal Dissipation Constant			
				(Ω)	(A)			
5(B)	BKNTB02-005□5	5	2	35	7	30	1.5	-40~+170
	BKNTB01-010□5	10	1	35	7	30	1.5	-40~+170
	BKNTB02-006□5	6	2	35	7	30	1.5	-40~+170
	BKNTB02-007□5	7	2	35	7	30	1.5	-40~+170
	BKNTB02-008□5	8	2	35	7	30	1.5	-40~+170
	BKNTB02-009□5	9	2	35	7	30	1.5	-40~+170
	BKNTB02-010□5	10	2	35	7	30	1.5	-40~+170
	BKNTB01-012□5	12	1	35	7	30	1.5	-40~+170
	BKNTB02-012□5	12	2	35	7	30	1.5	-40~+170
	BKNTBR25-045□5	45	0.25	35	7	30	1.5	-40~+170
8(D)	BKNTD04-003□5	3	4	48	12	120	2.3	-40~+170
	BKNTD04-004□5	4	4	48	12	120	2.3	-40~+170
	BKNTD04-005□5	5	4	48	9	120	2.3	-40~+170
	BKNTD04-006□5	6	4	48	9	120	2.3	-40~+170
	BKNTD04-007□5	7	4	48	9	120	2.3	-40~+170
	BKNTD03-008□5	8	3	45	12	120	2.3	-40~+170
	BKNTD03-009□5	9	3	45	12	120	2.3	-40~+170
	BKNTD03-010□5	10	3	45	12	120	2.3	-40~+170
10(E)	BKNTE05-001□5	1	5	59	12	330	2.5	-40~+170
	BKNTE05-002□5	2	5	59	12	330	2.5	-40~+170
	BKNTE05-003□5	3	5	59	12	330	2.5	-40~+170
	BKNTE04-005□5	5	4	59	12	330	2.5	-40~+170
	BKNTE04-006□5	6	4	59	12	330	2.5	-40~+170
	BKNTE04-007□5	7	4	59	12	330	2.5	-40~+170
	BKNTE04-008□5	8	4	59	12	330	2.5	-40~+170
	BKNTE04-009□5	9	4	59	12	330	2.5	-40~+170
	BKNTE04-010□5	10	4	59	12	330	2.5	-40~+170
	BKNTE03-011□5	11	3	58	11	230	2.5	-40~+170
	BKNTE03-012□5	12	3	58	11	230	2.5	-40~+170
	BKNTE03-013□5	13	3	58	11	230	2.5	-40~+170
	BKNTE03-014□5	14	3	58	11	230	2.5	-40~+170

## NEGATIVE TEMPERATURE COEFFICIENT | NT

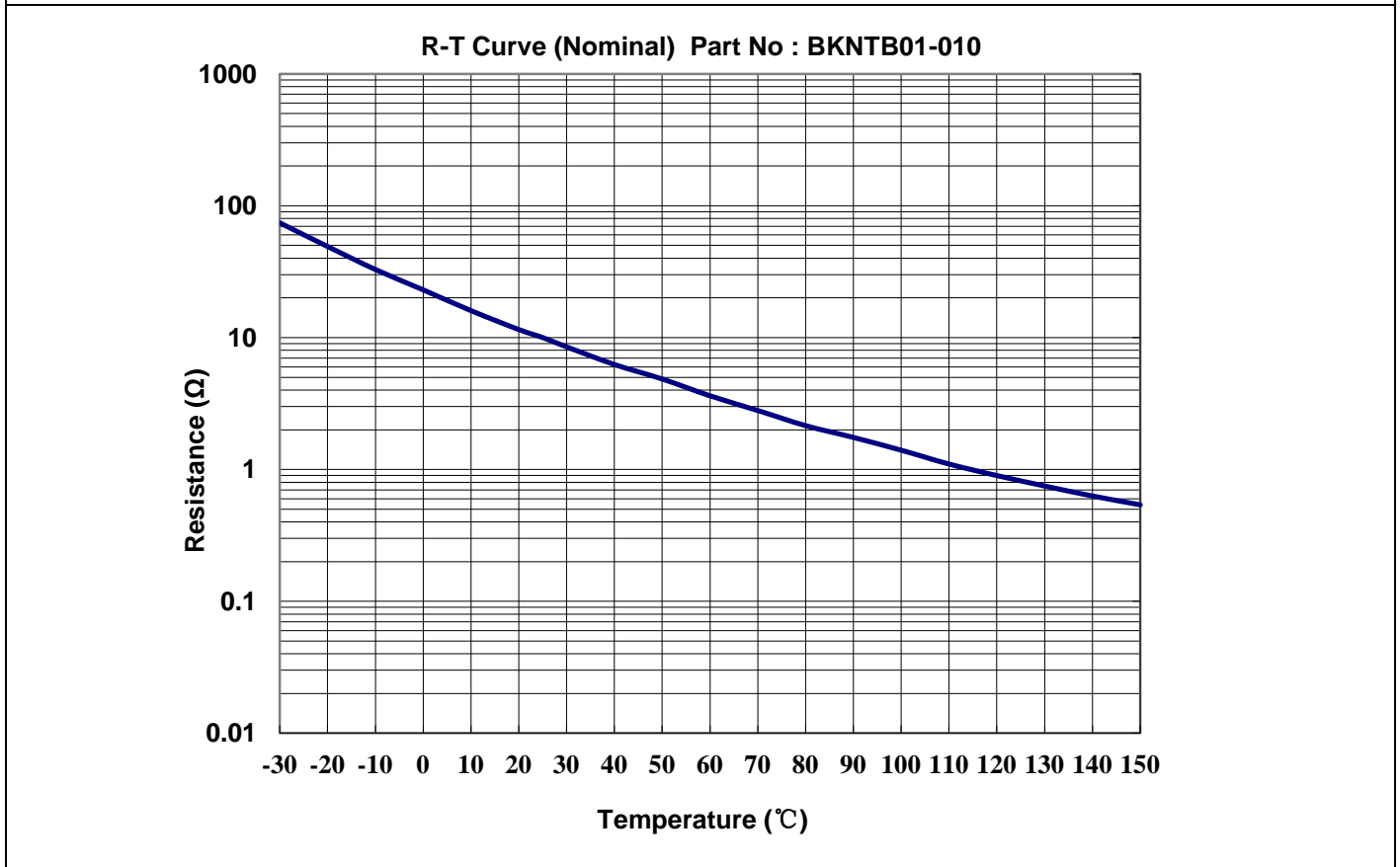
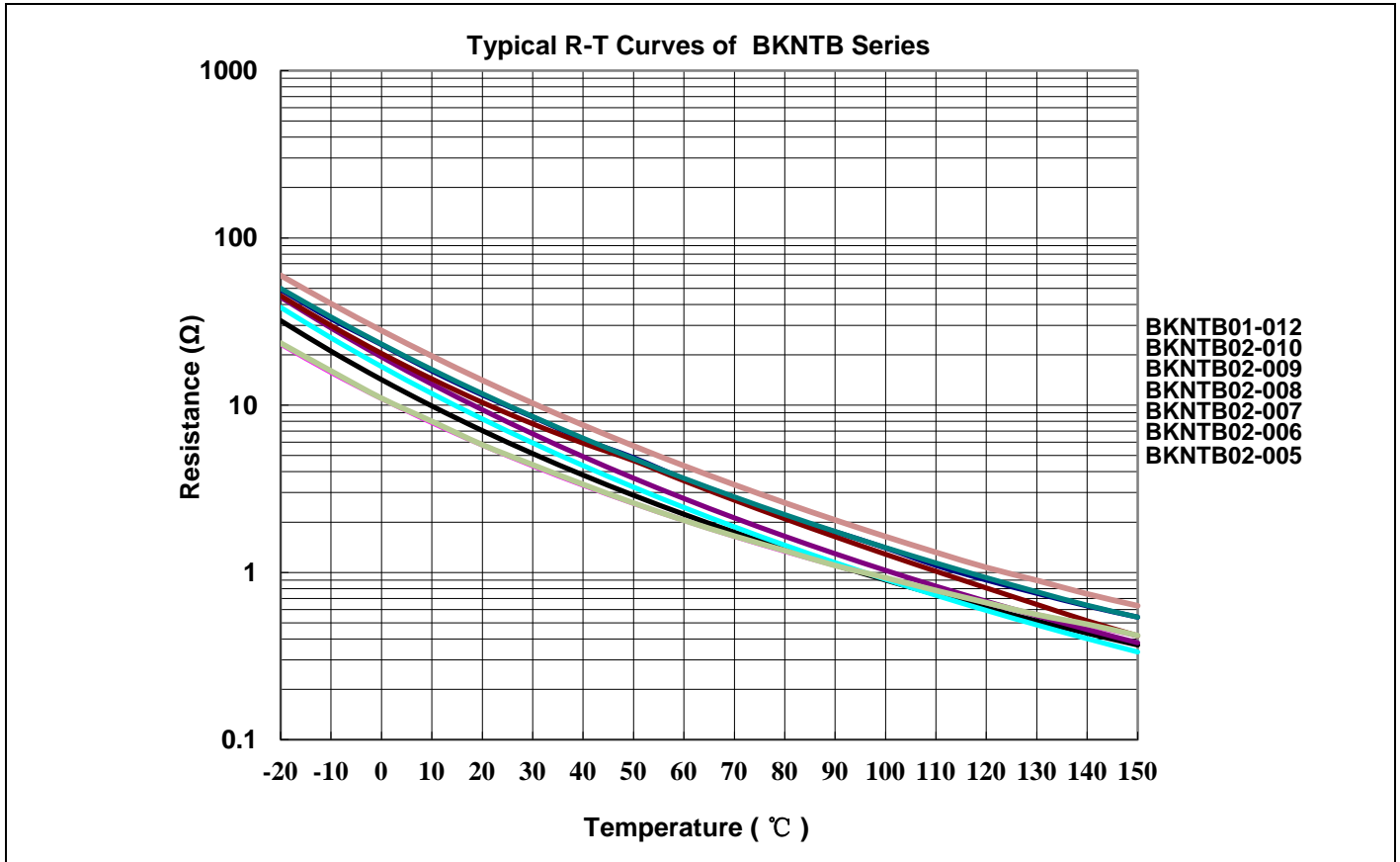
## Electrical Characteristics

Nominal Diameter (mm)	Part Number	Zero Power Resistance at 25°C	Maximum Steady State Current at 25°C	Typical value		Recommend Capacitance 240Vac	Maximum Steady Power	Operating Temperature Range
				Thermal Time Constant	Thermal Dissipation Constant			
				(s)	(mW/°C)			
		(Ω)	(A)			(μF)	(W)	(°C)
10(E)	BKNTG03-015□5	15	3	62	11	230	2.5	-40~+170
	BKNTG03-016□5	16	3	62	11	230	2.5	-40~+170
	BKNTG03-017□5	17	3	62	11	230	2.5	-40~+170
	BKNTG03-018□5	18	3	62	11	230	2.5	-40~+170
	BKNTG03-019□5	19	3	62	11	230	2.5	-40~+170
	BKNTG03-020□5	20	3	62	11	230	2.5	-40~+170
	BKNTG03-021□5	21	3	62	11	230	2.5	-40~+170
	BKNTG03-022□5	22	3	62	11	230	2.5	-40~+170
13(G)	BKNTG07-001□5	1	7	85	18	430	3	-40~+200
	BKNTG07-002□5	2	7	85	18	430	3	-40~+200
	BKNTG07-003□5	3	7	85	18	430	3	-40~+200
	BKNTG06-005□5	5	6	93	17	430	3	-40~+200
	BKNTG05-006□5	6	5	90	17	430	3	-40~+200
	BKNTG05-007□5	7	5	80	19	430	3	-40~+200
	BKNTG05-008□5	8	5	91	15	430	3	-40~+200
	BKNTG05-009□5	9	5	89	15	430	3	-40~+200
	BKNTG05-010□5	10	5	87	14	430	3	-40~+200
	BKNTG04-011□5	11	4	87	14	330	3	-40~+200
	BKNTG04-012□5	12	4	87	14	330	3	-40~+200
	BKNTG04-013□5	13	4	87	14	330	3	-40~+200
	BKNTG04-014□5	14	4	87	14	330	3	-40~+200
	BKNTG04-015□5	15	4	87	14	330	3	-40~+200
	BKNTG04-016□5	16	4	87	15	330	3	-40~+200
	BKNTG04-017□5	17	4	87	15	330	3	-40~+200
	BKNTG04-018□5	18	4	87	15	330	3	-40~+200
	BKNTG04-019□5	19	4	87	15	330	3	-40~+200
	BKNTG04-020□5	20	4	87	15	330	3	-40~+200

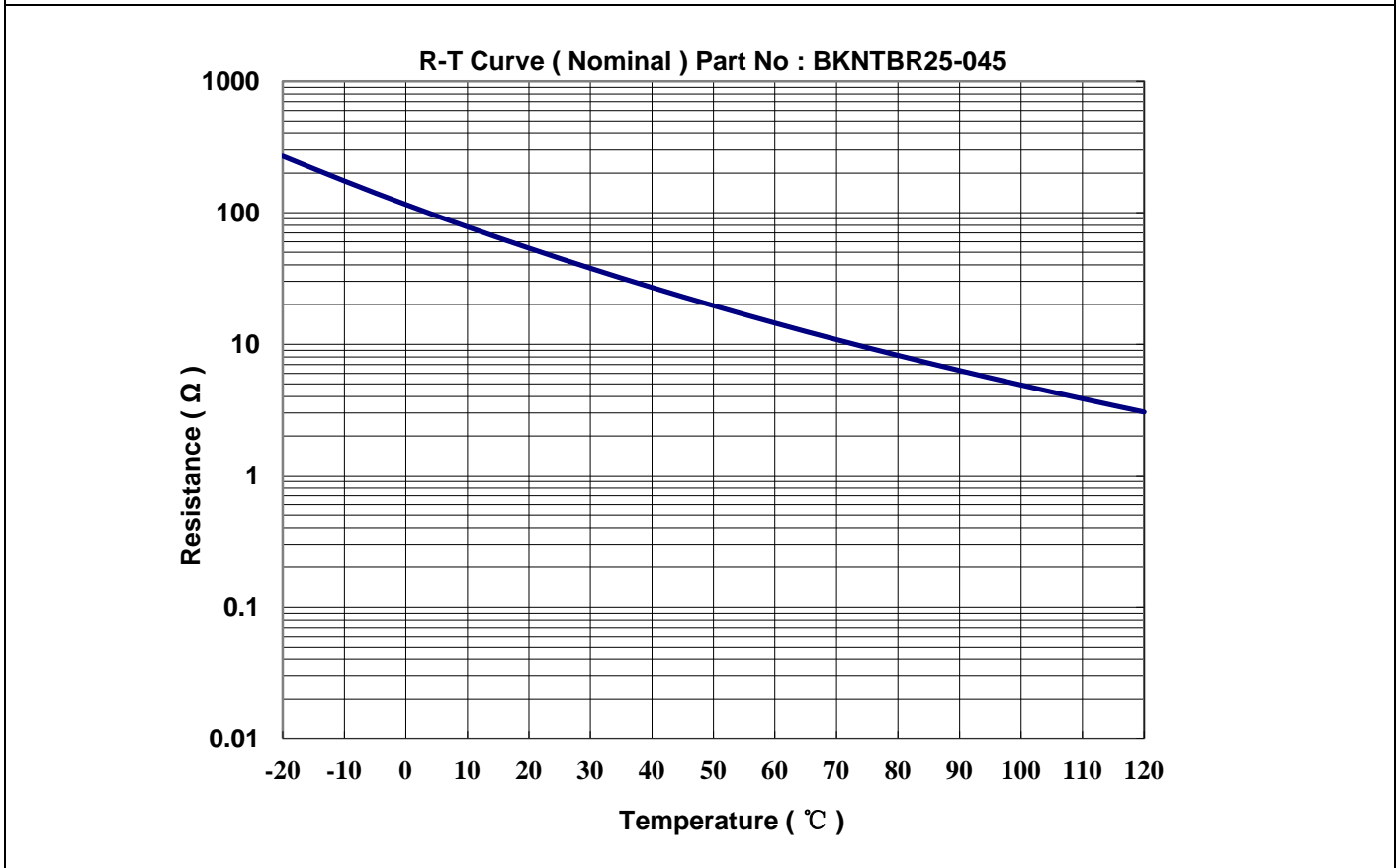
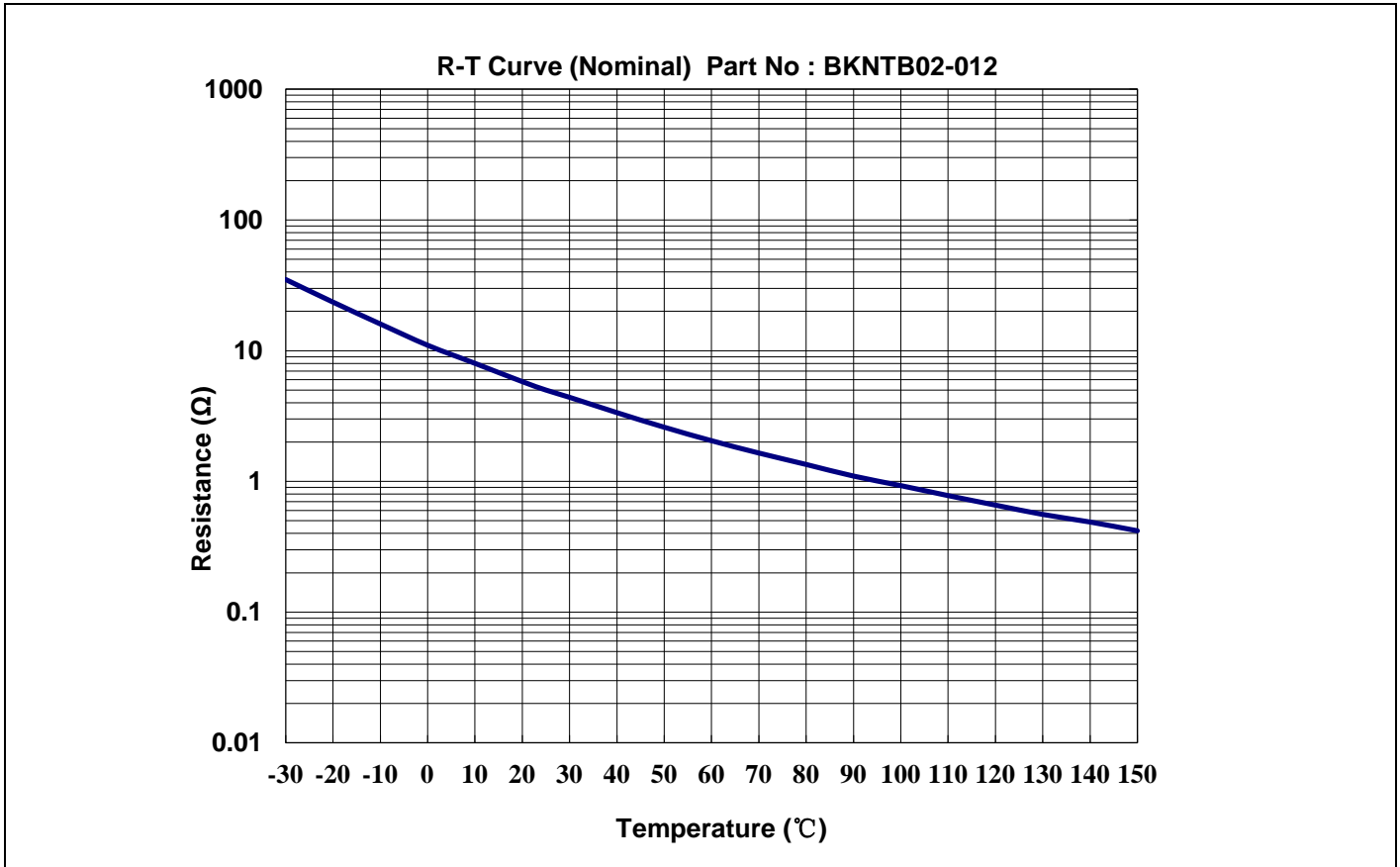
## Electrical Characteristics

Nominal Diameter (mm)	Part Number	Zero Power Resistance at 25°C	Maximum Steady State Current at 25°C	Typical value		Recommend Capacitance 240Vac	Maximum Steady Power	Operating Temperature Range
				Thermal Time Constant	Thermal Dissipation Constant			
				(Ω)	(A)			
15(J)	BKNTJ09-001□5	1	9	104	20	640	4	-40~+200
	BKNTJ09-002□5	2	9	104	20	640	4	-40~+200
	BKNTJ09-2R5□5	2.5	9	104	20	640	4	-40~+200
	BKNTJ09-003□5	3	9	106	20	640	4	-40~+200
	BKNTJ08-005□5	5	8	110	20	640	4	-40~+200
	BKNTJ06-008□5	8	6	99	15	640	4	-40~+200
	BKNTJ06-009□5	9	6	99	16	640	4	-40~+200
	BKNTJ06-010□5	10	6	99	19	640	4	-40~+200
	BKNTJ06-011□5	11	6	99	19	560	4	-40~+200
	BKNTJ06-012□5	12	6	99	21	560	4	-40~+200
	BKNTJ06-013□5	13	6	99	19	560	4	-40~+200
	BKNTJ06-014□5	14	6	99	19	560	4	-40~+200
	BKNTJ06-015□5	15	6	99	17	560	4	-40~+200
	BKNTJ04-040□5	40	4	101	20	560	4	-40~+200
20(L)	BKNTL12-0R7□5	0.7	12	160	28	820	5	-40~+200
	BKNTL12-001□5	1	12	160	28	820	5	-40~+200
	BKNTL12-002□5	2	12	160	28	820	5	-40~+200
	BKNTL12-2R5□5	2.5	12	120	24	820	5	-40~+200
	BKNTL12-003□5	3	12	130	24	820	5	-40~+200
	BKNTL10-005□5	5	10	144	24	820	5	-40~+200
	BKNTL10-006□5	6	10	144	24	820	5	-40~+200

**Resistance–Temperature Characteristic Curves**

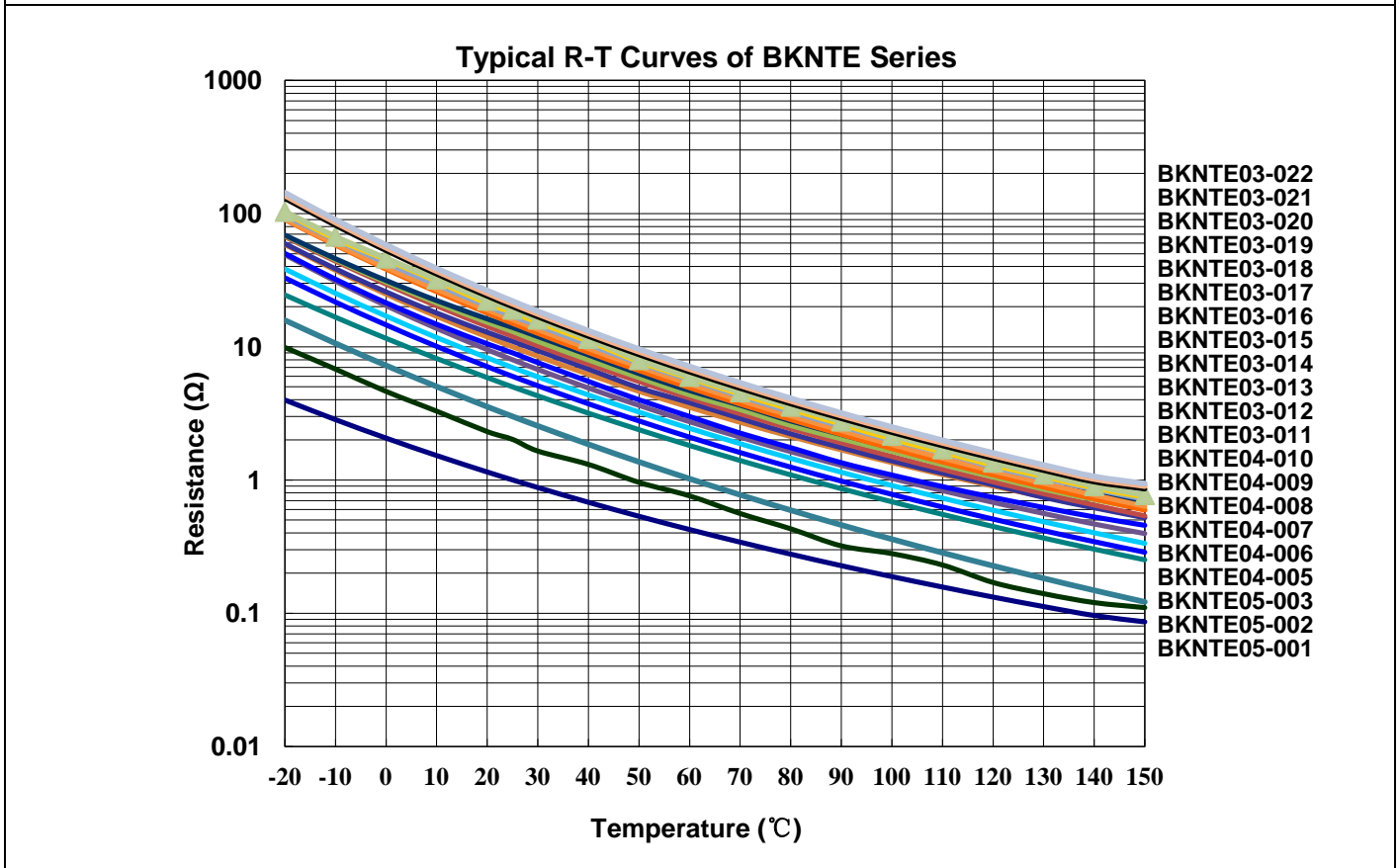
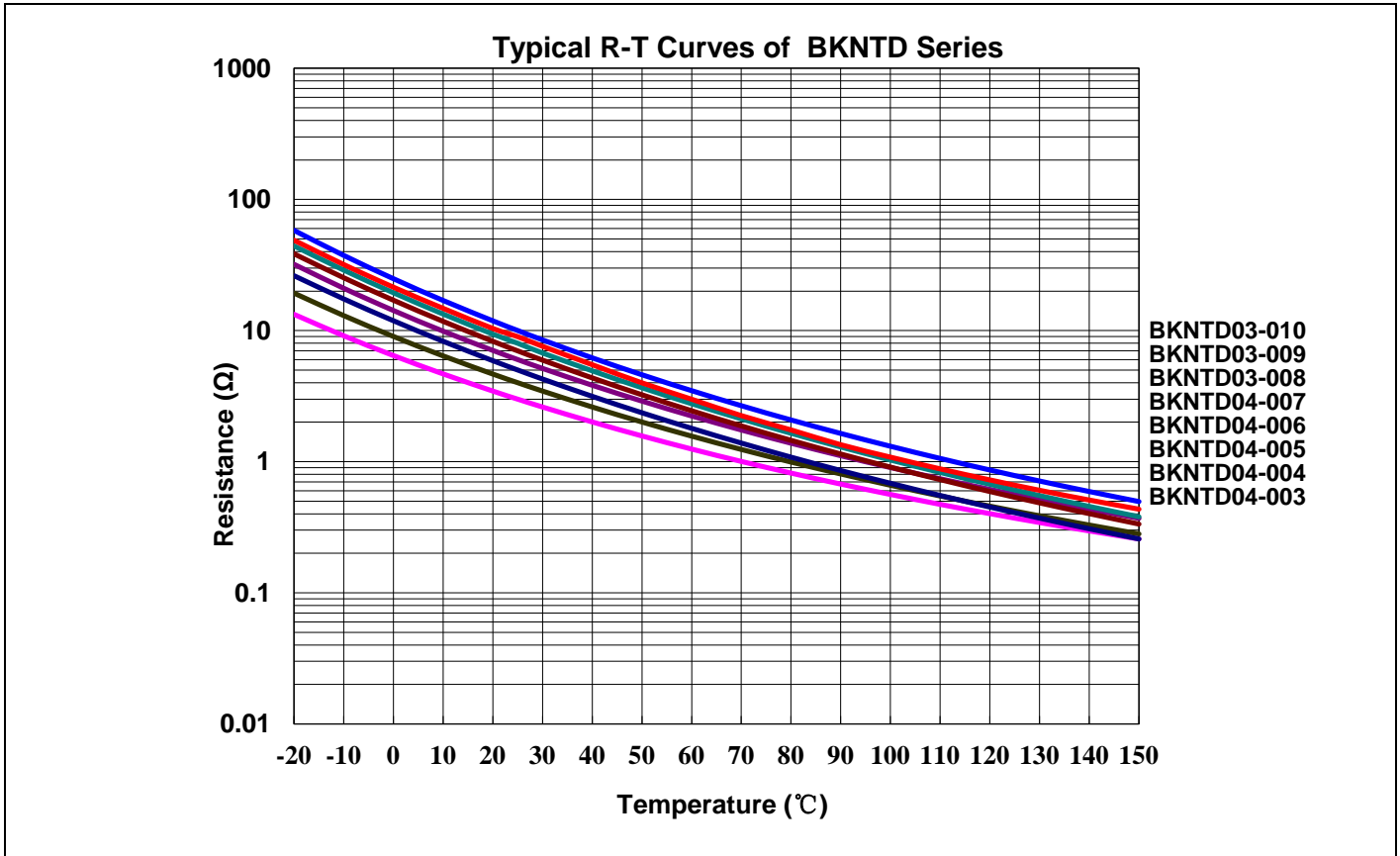


### Resistance–Temperature Characteristic Curves

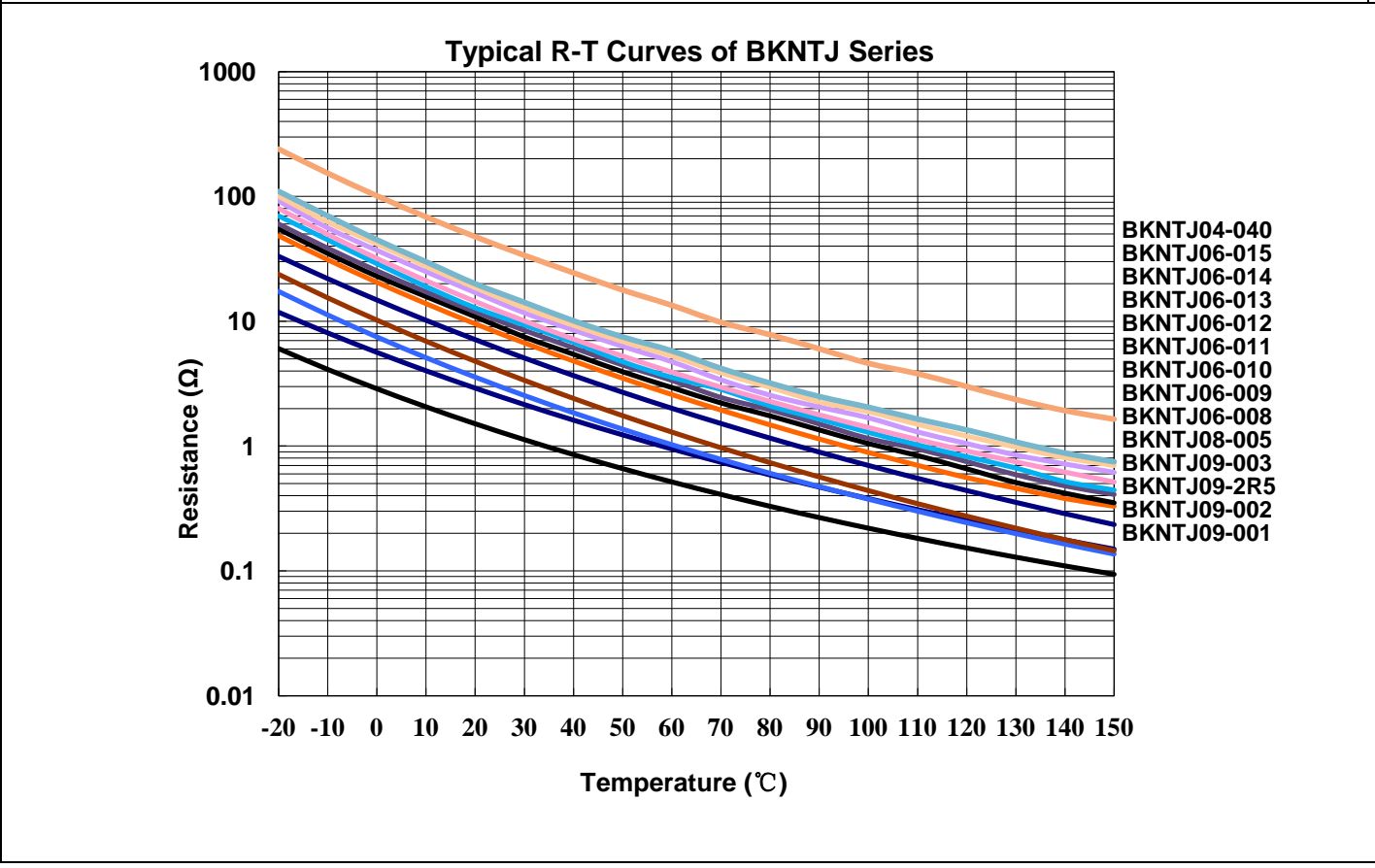
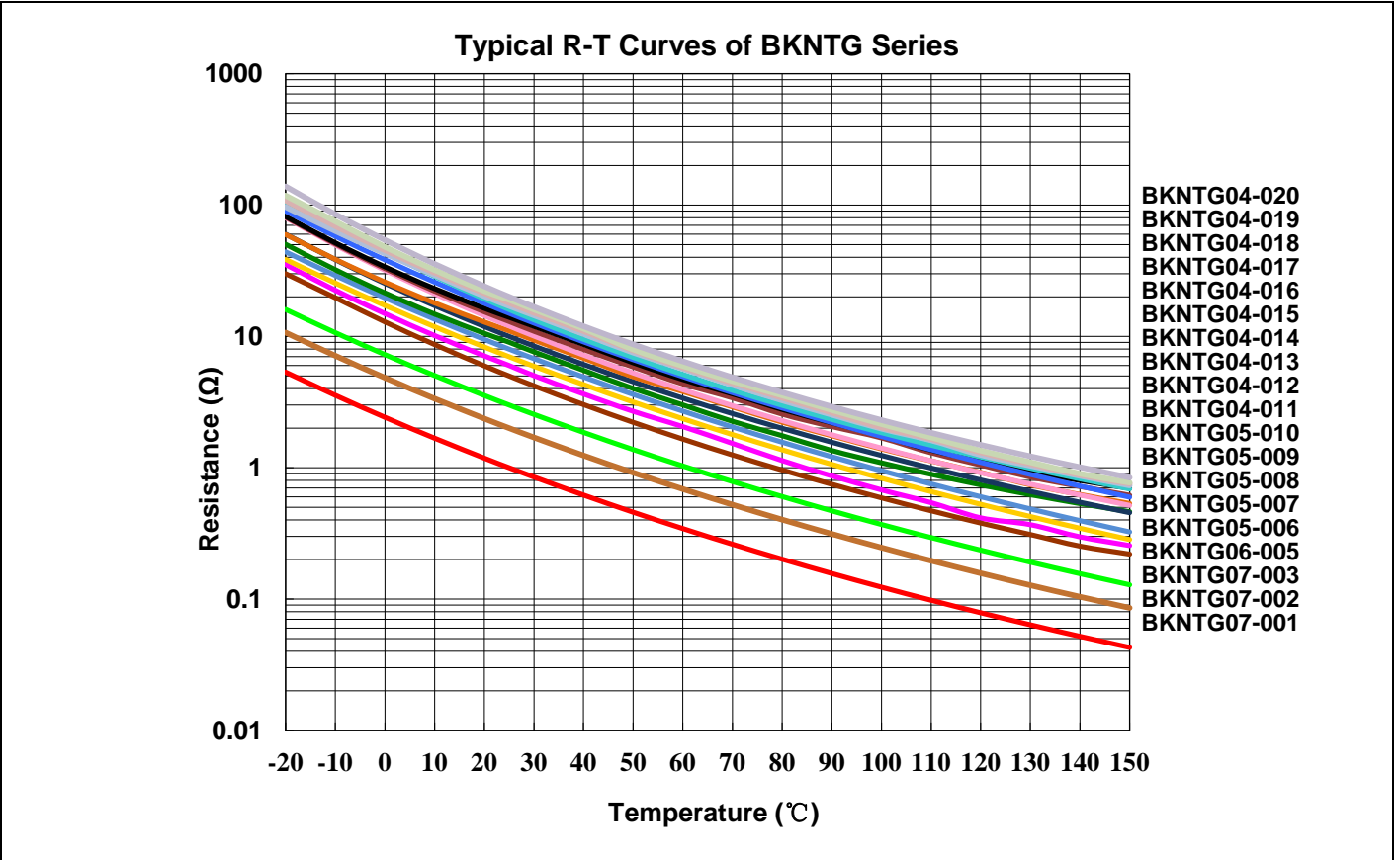




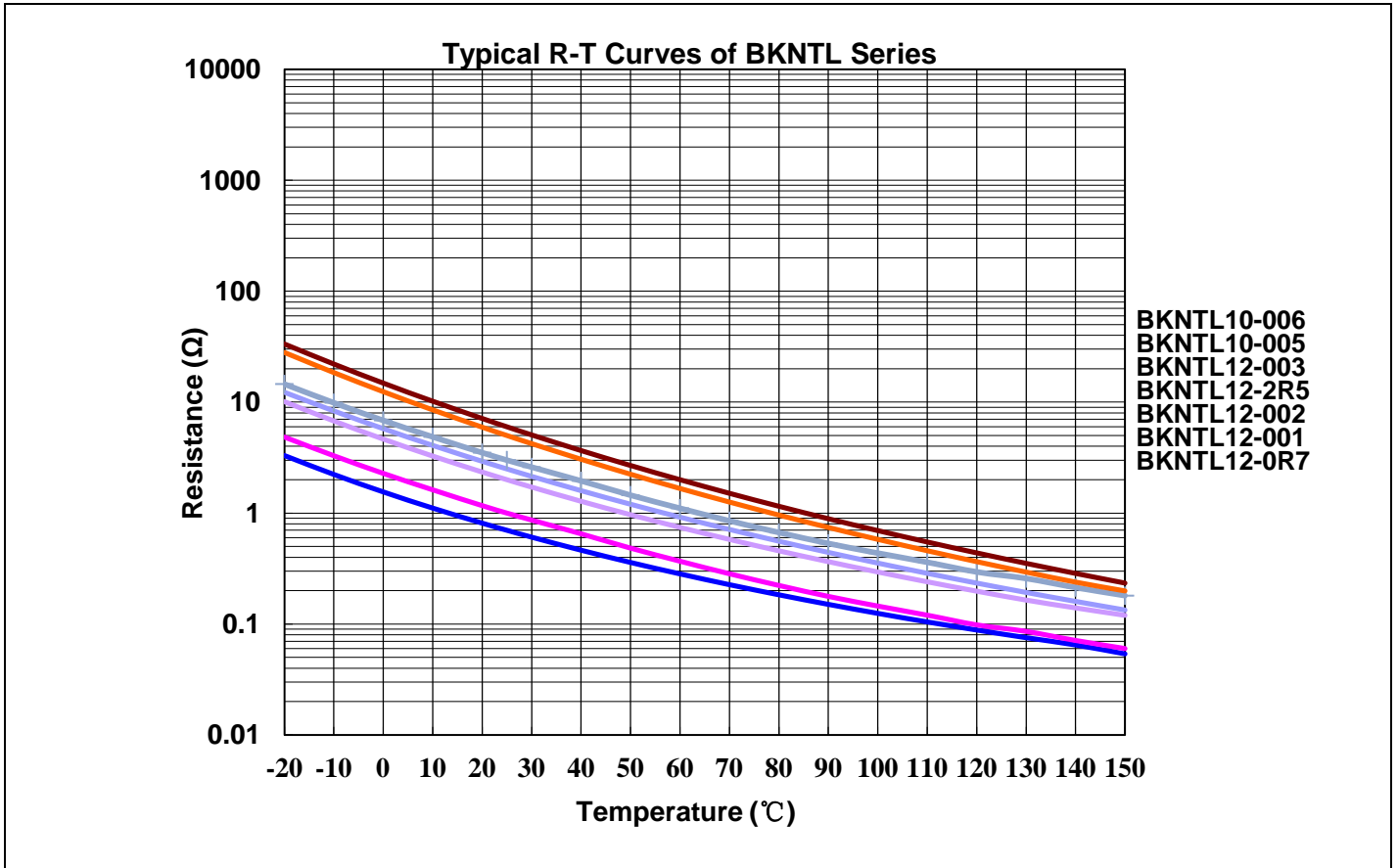
**Resistance–Temperature Characteristic Curves**



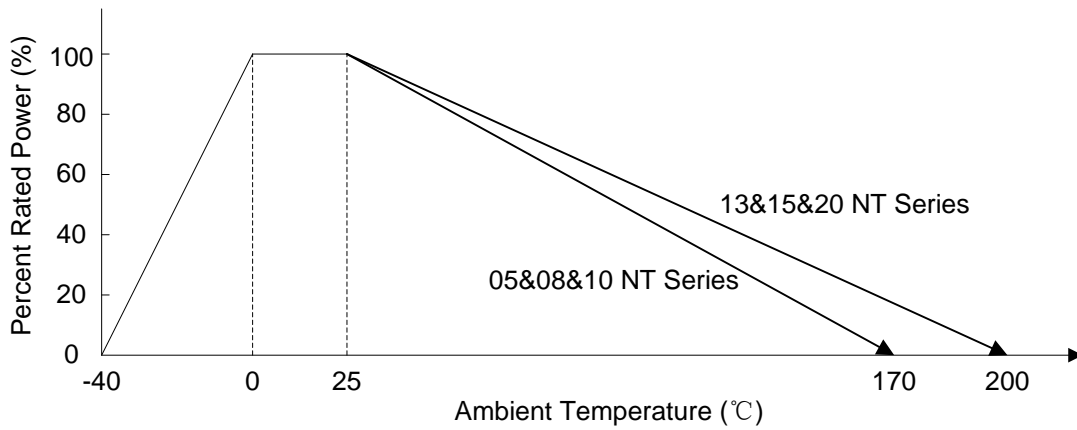
### Resistance–Temperature Characteristic Curves



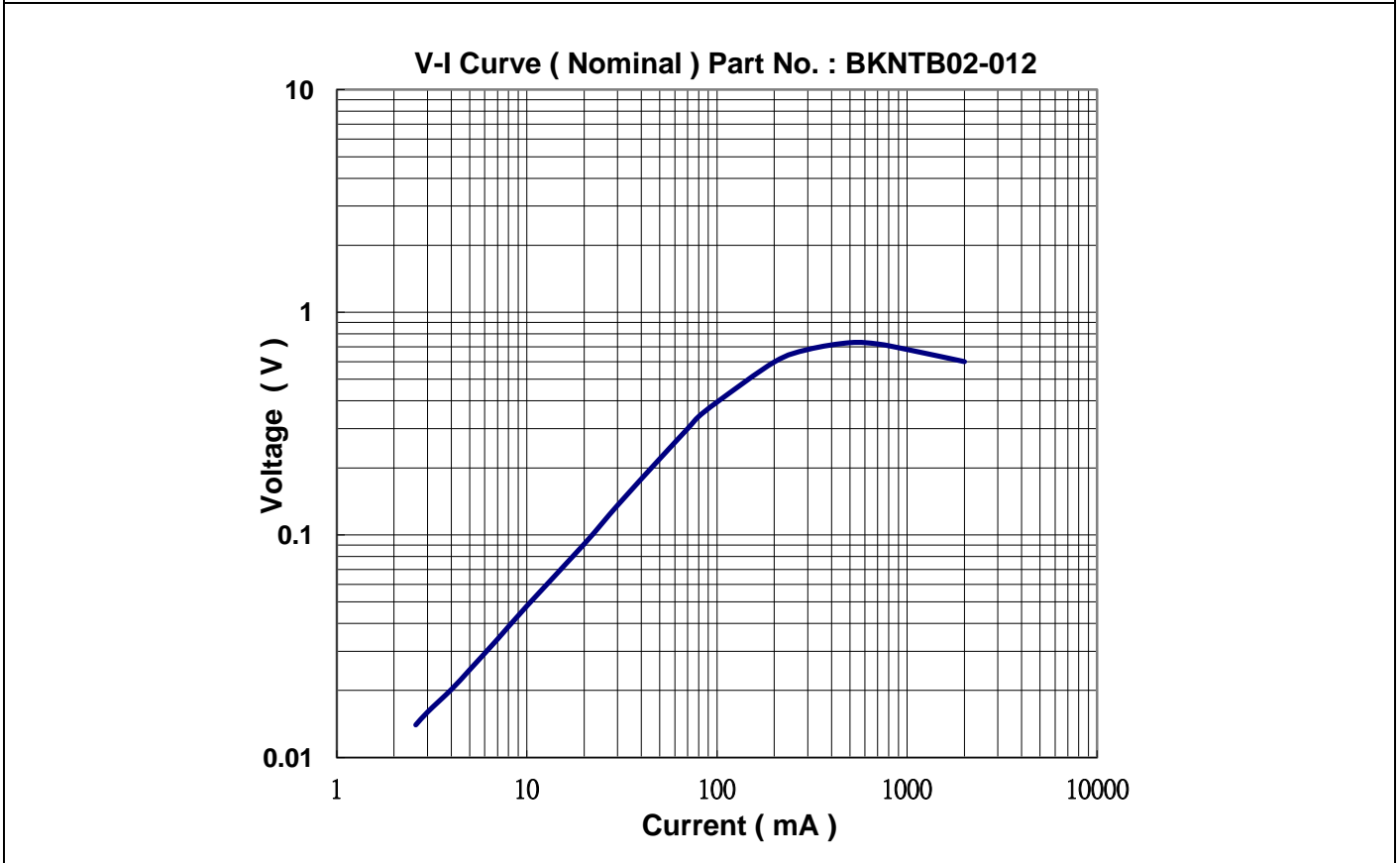
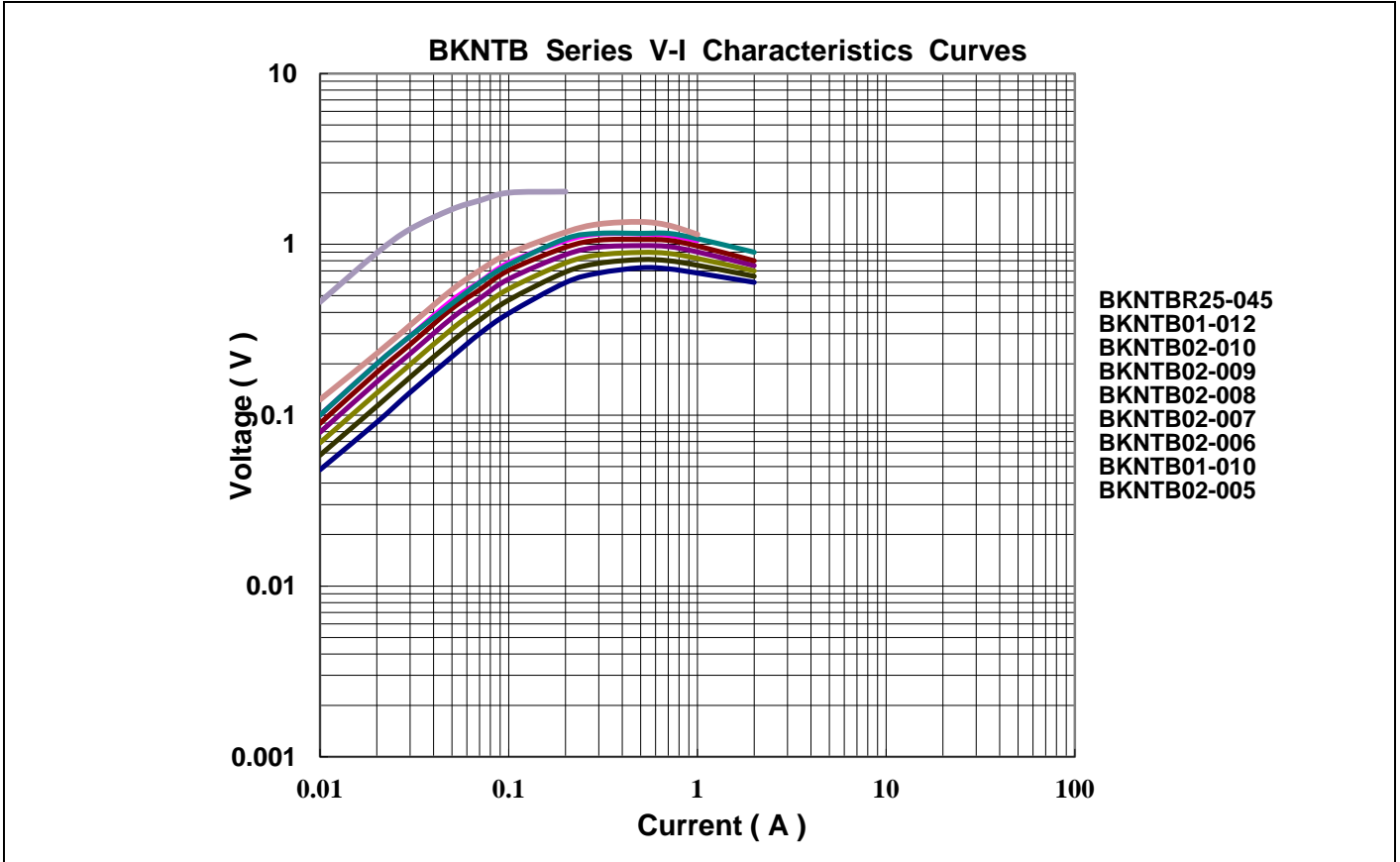
### Resistance–Temperature Characteristic Curves



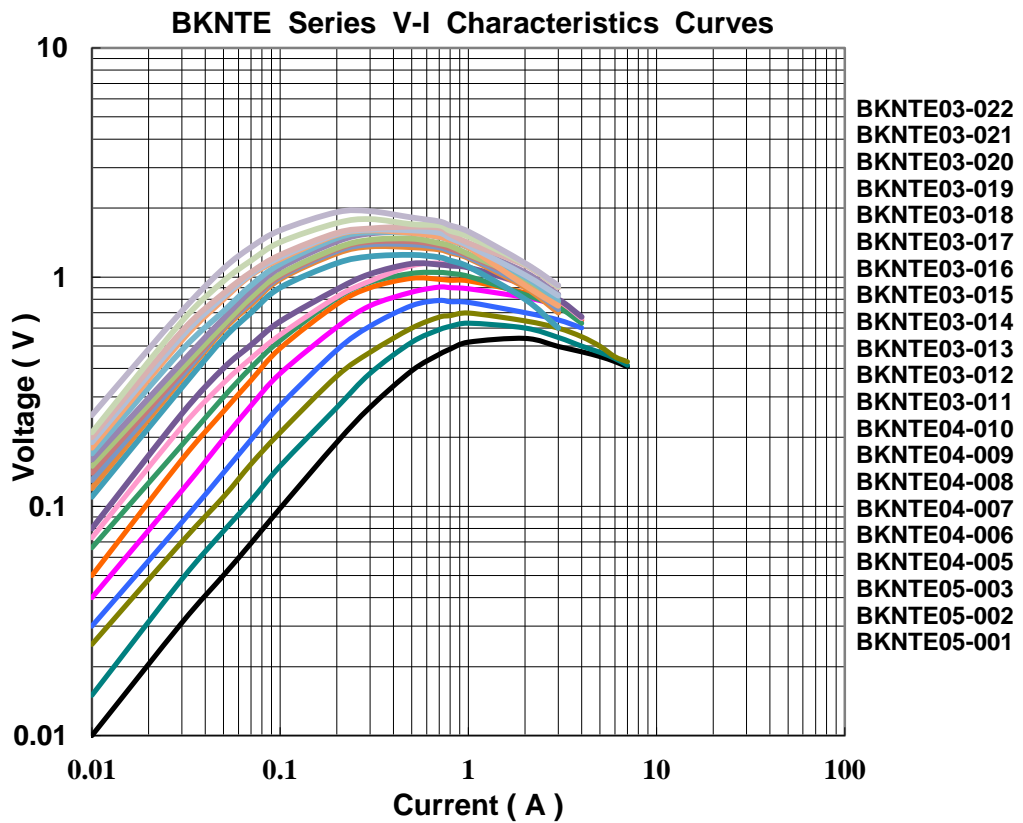
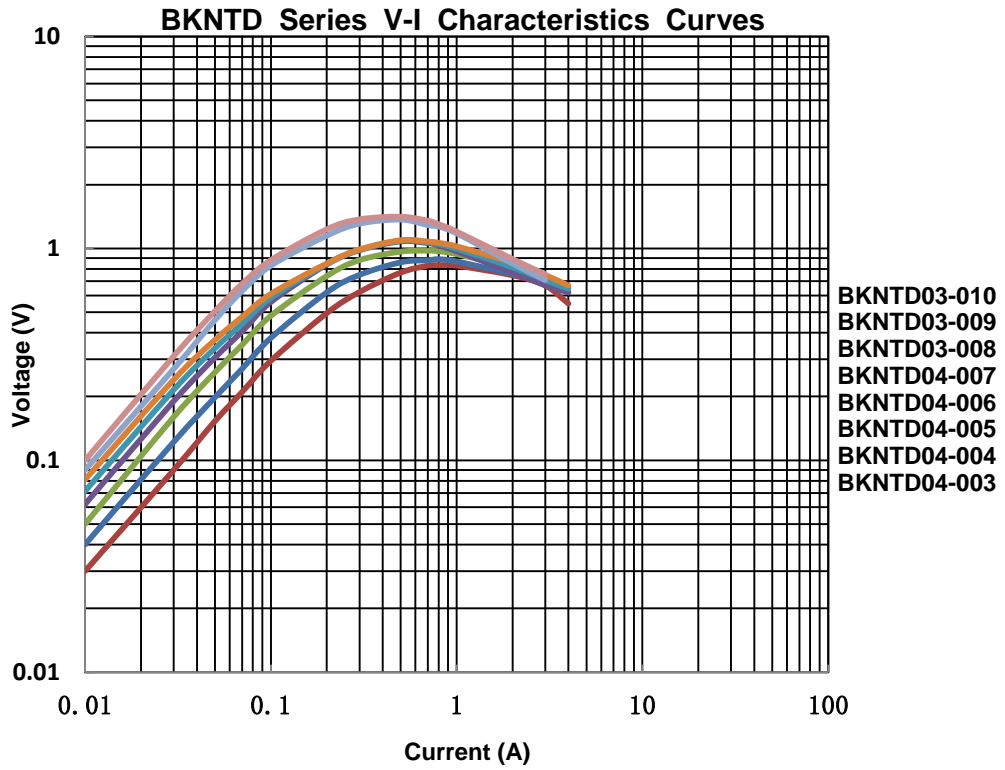
### Maximum Power Rating



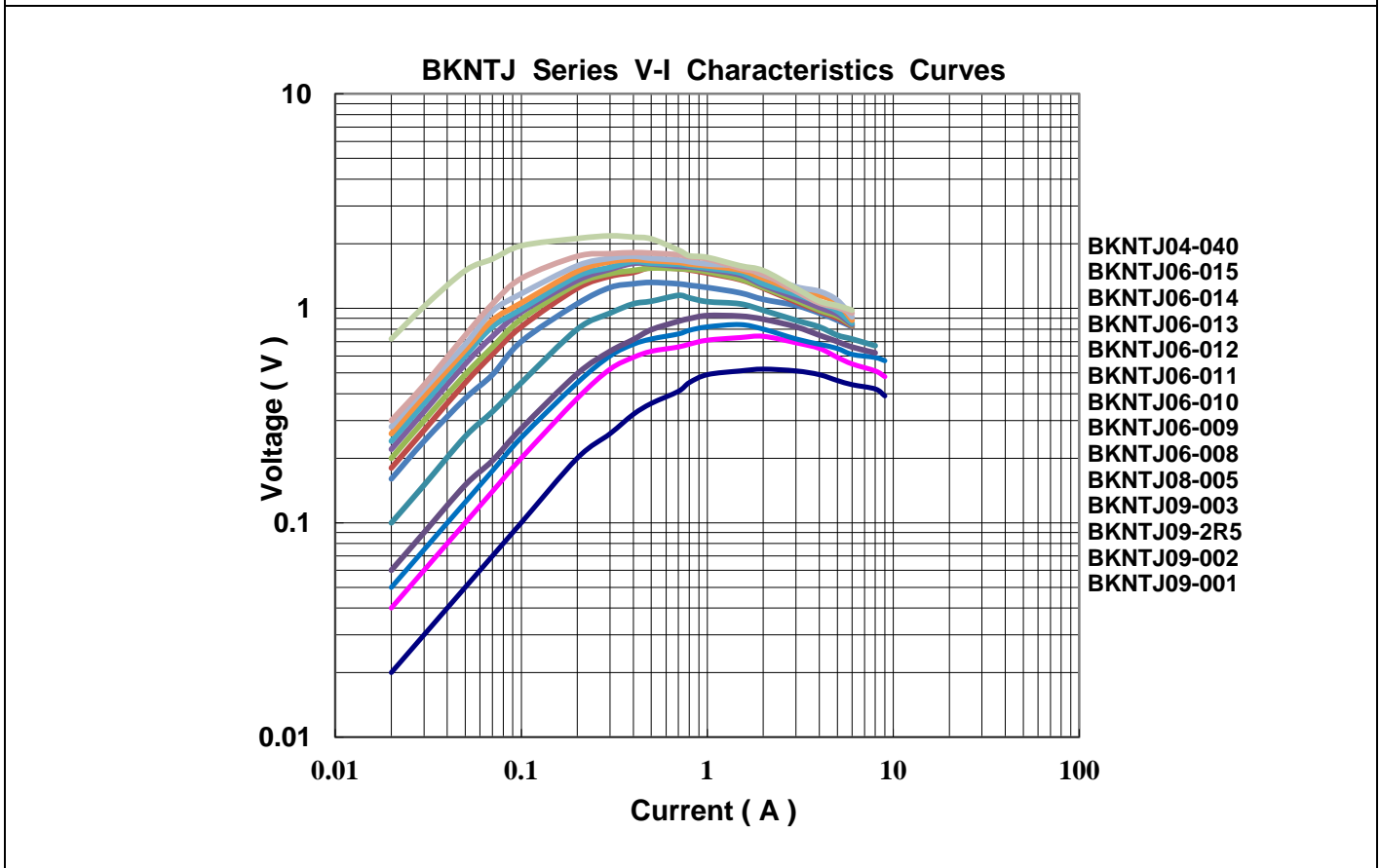
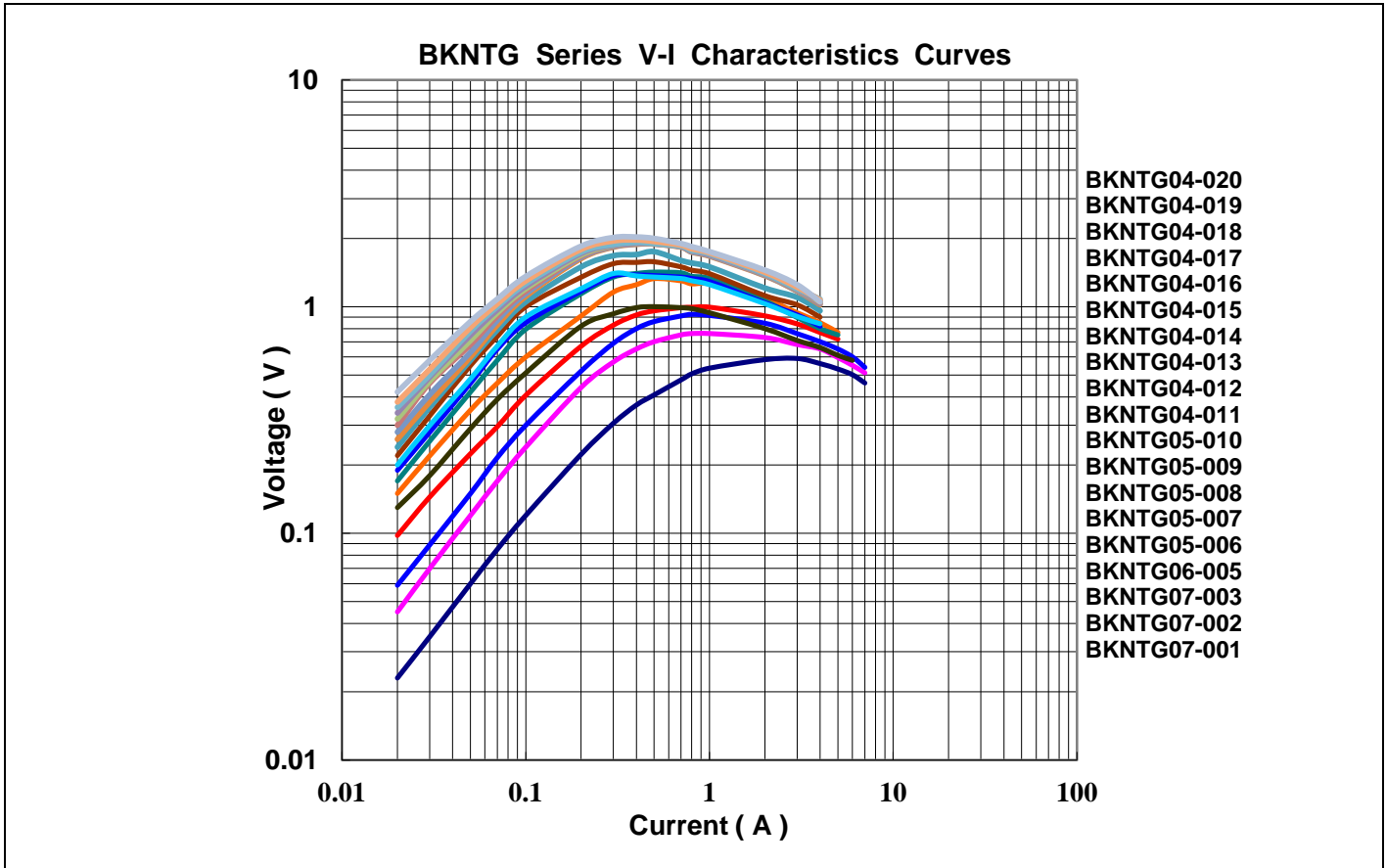
**V-I Characteristic Curves**



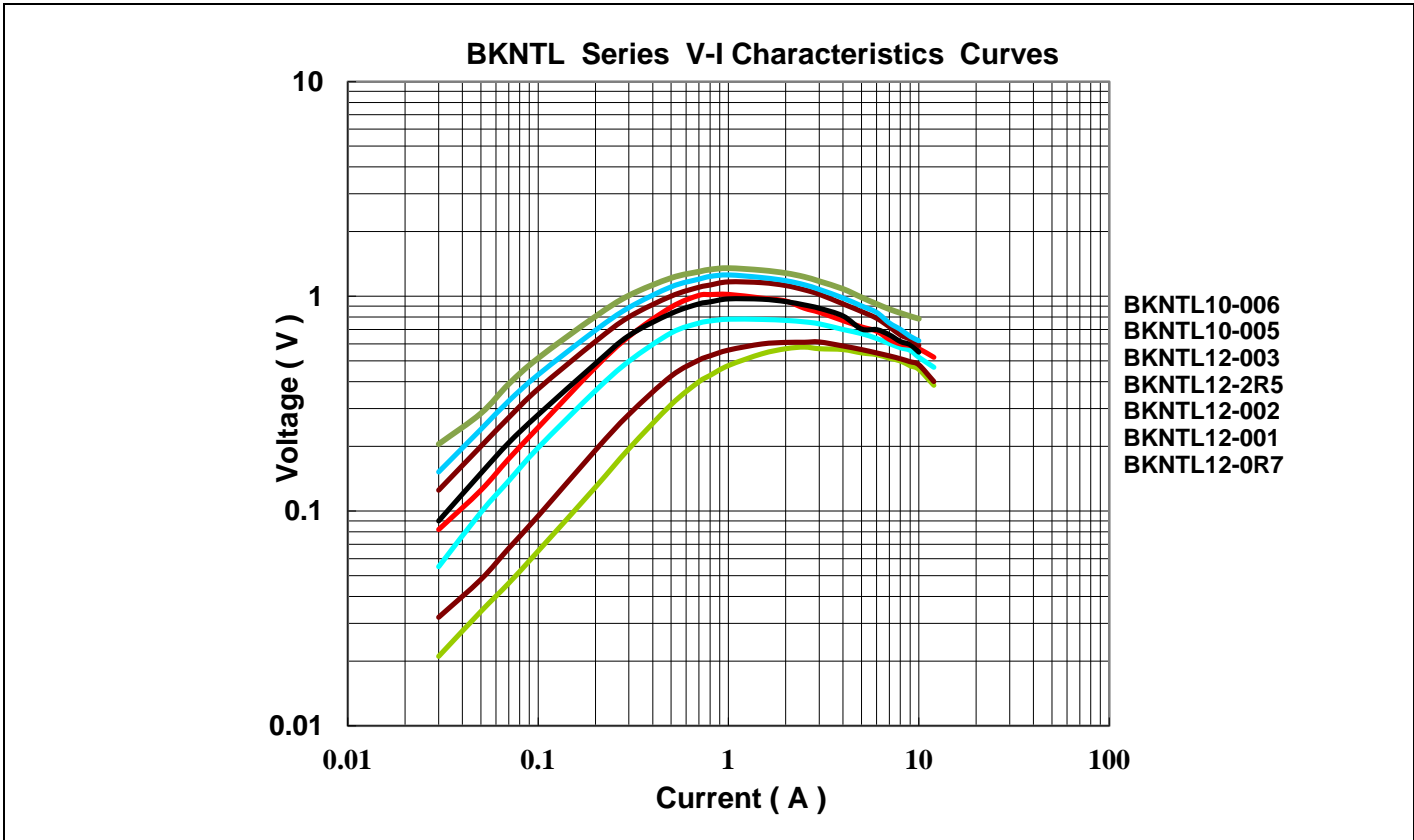
**V-I Characteristic Curves**



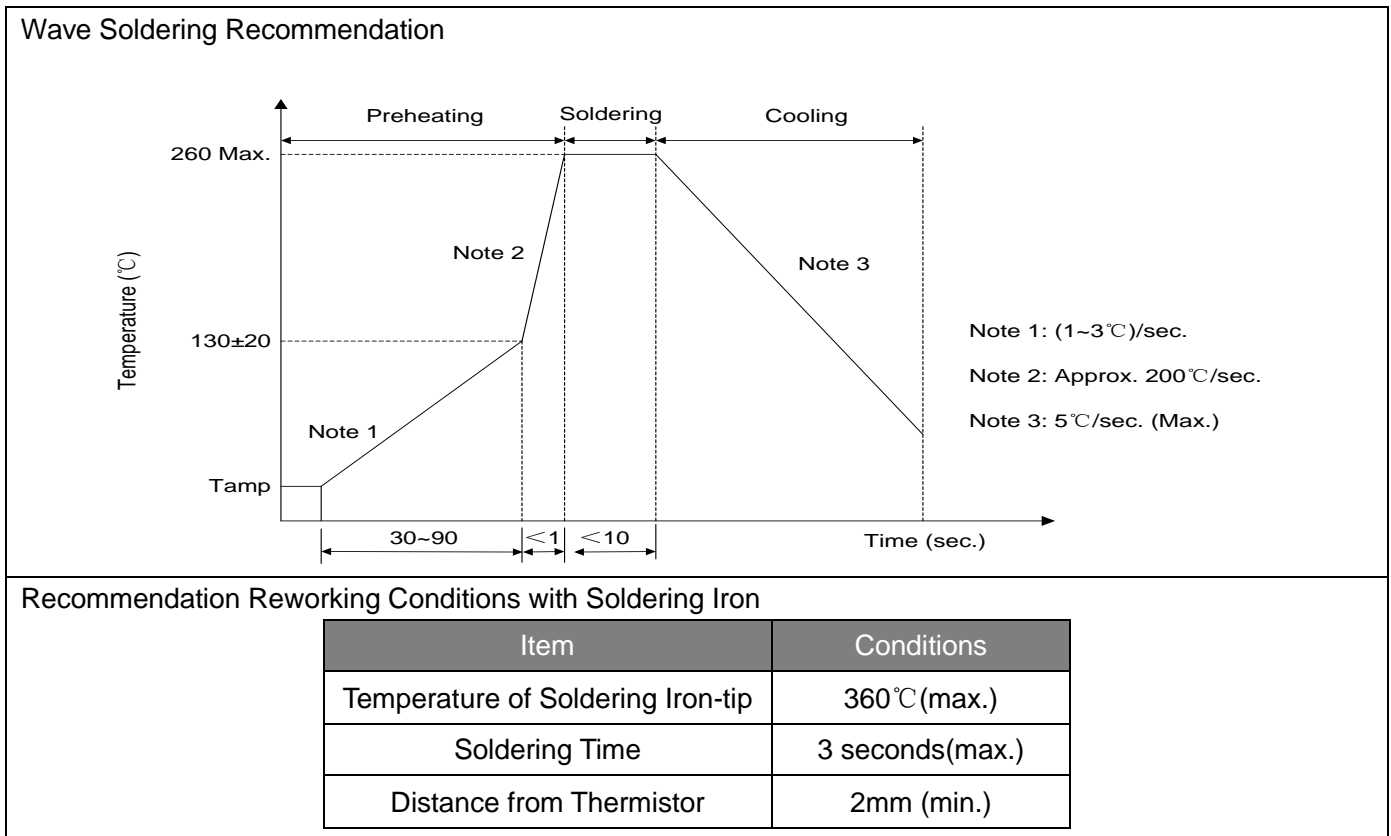
**V-I Characteristic Curves**



### V-I Characteristic Curves

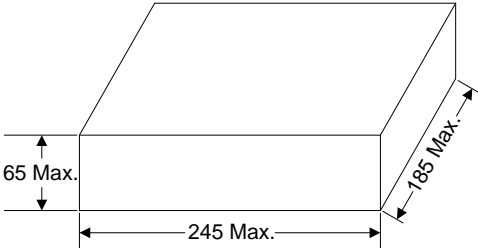


### Soldering Recommendation



**Packaging**

■ Bulk Packing

Bulk (Unit: mm)	Quantity
	1400pcs/box (Φ5)
	1000pcs/box (Φ8、Φ10)
	600pcs/box (Φ13)
	500pcs/box (Φ15)
	300pcs/box (Φ20)

**Warehouse Storage Conditions**

- Storage temperature: -10°C~+40°C.
- Relative humidity: ≤75%RH.
- Keep away from corrosive atmosphere and sunlight.
- Period of Storage: 1 year.