

RTX Series

Low Resistance Metal Film Chip Resistor

This specification is applicable to lead and halogen free RTX series low resistance metal film chip resistors.
Lead free products mean lead free termination meets RoHS requirement.

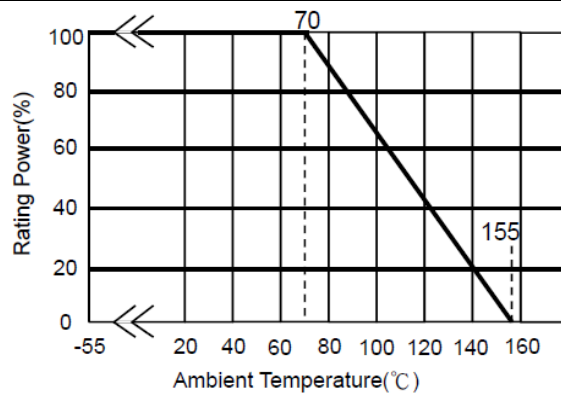
■ GENERAL SPECIFICATIONS

Model	Max. Rating Power at 70℃	Max. Rating Current	Max. Overload Current	TCR [PPM/℃]	Resistance Range[mΩ]		Operating Temp. Range
					±0.5% (D)	±1.0% (F) ±2.0% (G) ±5.0% (J)	
RTX03 (0603)	1/3W	1.8A	4.0A	±75	100mΩ≤R<360 mΩ	100mΩ≤R≤360mΩ	-55~155℃
RTX05 (0805)	1/8 W	1.58 A	3.54 A	±200	50mΩ≤R<100 mΩ	50mΩ≤R<100 mΩ	
				±75	100mΩ≤R<1000 mΩ	100mΩ≤R<1000 mΩ	
	1/4 W	2.24 A	5.00 A	±200	50mΩ≤R<100 mΩ	50mΩ≤R<100 mΩ	
				±75	100mΩ≤R<1000 mΩ	100mΩ≤R<1000 mΩ	
	1/2 W	3.16 A	7.07 A	±200	50mΩ≤R<100 mΩ	50mΩ≤R<100 mΩ	
				±75	100mΩ≤R<1000 mΩ	100mΩ≤R<1000 mΩ	
RTX06 (1206)	1/3 (1/4) W	2.72 A	6.09 A	±300	---	45mΩ≤R<50mΩ	
				±200	50mΩ≤R<100 mΩ	50mΩ≤R<100 mΩ	
				±75	100mΩ≤R<1000 mΩ	100mΩ≤R≤1000 mΩ	
	1/2 W	3.33 A	7.45 A	±300	---	45mΩ≤R<50mΩ	
				±200	50mΩ≤R<100 mΩ	50mΩ≤R<100 mΩ	
				±75	100mΩ≤R<1000 mΩ	100mΩ≤R≤1000 mΩ	
	1 W	4.71 A	10.54 A	±300	---	45mΩ≤R<50mΩ	
				±200	50mΩ≤R<100 mΩ	50mΩ≤R<100 mΩ	
				±75	100mΩ≤R≤1000 mΩ	100mΩ≤R<1000 mΩ	
RTX25 (2512)	1 W	3.16 A	7.07 A	±75	100mΩ≤R≤1000 mΩ	100mΩ≤R≤1000 mΩ	
	2 W	4.47 A	10.00 A	±75	100mΩ≤R≤1000 mΩ	100mΩ≤R≤1000 mΩ	

■ CHARACTERISTICS

Temperature Coefficient of Resistance	Refer to Paragraph general specifications	JIS C 5201 4.8 Method ; $TCR(ppm/℃) = \{(R2-R1)/R1(T2-T1)\} \times 10^6$ R1 : Resistance of room temp.(T1), R2 : Resistance of 125℃(T2)
Short Time Overload	(ΔR) ≤ ±1.0%	JIS C 5201-1 4.13 Method ; Applied 5 times rated power for 5seconds and release the load for about 30 minutes, then measure its resistance variance rate.
Insulation Resistance	≥10 ⁹ Ω	JIS C 5201 4.6 Method ; DC100V _{DC} for 1minute
Dielectric Withstanding Voltage	No short or burned on the appearance	JIS C 5201 4.7 Method ; Applied AC500V _{AC} for 1minute.
Solderability	95% coverage	JIS C 5201 4.17 Method ; 235±5℃, 2 seconds
Resistance to Solder Heat	(ΔR) ≤ ±1.0%	JIS C 5201 4.18 Method ; Solder temperature/immersion time : 260+5-0℃, 10seconds
Vibration	(ΔR) ≤ ±1.0%	JIS C 5201-1 4.22 ; 10Hz to 55Hz and return 10Hz, Shall be transferred in 1min. This motion shall be applied for a period of 2 hour in each 3 directions
Thermal Shock	(ΔR) ≤ ±1.0%	JIS C 5201-1 4.25 ; Lowest Temperature -55±5℃ / Highest Temperature 150±5℃ / Temperature-rataining time 15minutes each / 300times consecutively
Loading Life in Moisture	(ΔR) ≤ ±1.0%	JIS C 5201-1 4.24 ; 85±5℃, 85±5%, 90 minutes On, 30 minutes Off, 1000 hours
Load Life	(ΔR) ≤ ±2.0%	JIS C 5201-1 4.25 ; 70±2℃, 90 minutes On, 30 minutes Off, 1000 hours

■ DERATING CURVE



■ DIMENSIONS [mm]

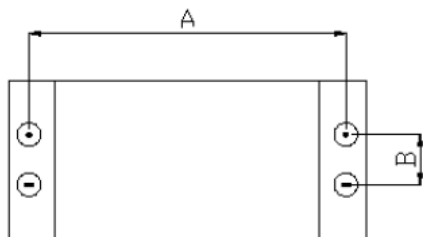
Model	Size Code	Unit : mm				
		L	W	H	L1	L2
RTX03	0603	1.60±0.10	0.80±0.10	0.45±0.10	0.25±0.15	0.30±0.15
RTX05	0805	2.00±0.10	1.25±0.10	0.55±0.10	0.35±0.20	0.35±0.20
RTX06	1206	3.05±0.10	1.55±0.10	0.55±0.10	0.50±0.20	0.50±0.20
RTX25	2512	6.30±0.20	3.20±0.20	0.55±0.10	0.65±0.20	0.65±0.20

■ SOLDER PAD DIMENSIONS

Type	Unit : mm		
	A	B	C
RTX03	0.8	2.1	0.9
RTX05	1.2	3.0	1.3
RTX06	2.2	4.2	1.6
RTX25	3.8	8.0	3.5

■ MEASUREMENT POINT

Type	Unit : mm	
	A	B
RTX03	1.14±0.05	0.46±0.05
RTX05	1.80±0.05	0.35±0.05
RTX06	2.90±0.05	0.35±0.05
RTX25	5.90±0.05	1.60±0.05



⊙ Current Terminal

⊖ Voltage Terminal



■ PACKAGING

Model	Max. Rating Power at 70 °C	Packaging type (Refer to IE-SP-055)
RTX03 (0603)	1/3W	TE : 4 mm Pitch Carrier Tape 4,000 pcs TP : 4 mm Pitch Carrier Tape 5,000 pcs P2 : 4 mm Pitch Carrier Tape 10,000 pcs P3 : 4 mm Pitch Carrier Tape 15,000 pcs P4 : 4 mm Pitch Carrier Tape 20,000 pcs BA : Bulk Case
RTX05 (0805)	1/8 ~ 1/2 W	
RTX06 (1206)	1/3 (1/4) ~ 1 W	
RTX25 (2512)	1 ~ 2 W	

■ ORDERING PROCEDURE EXAMPLE

