

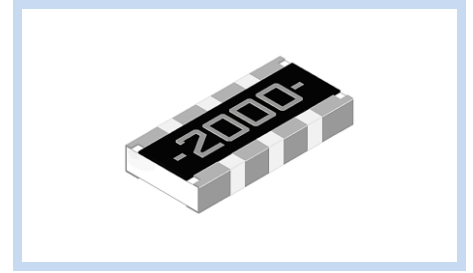
# Precision Thin Film Chip Resistor Array Type

RXA03-D3011DG

MERITEK

## FEATURE

- Operating temperature: -55 ~ +155°C
- Very tight tolerance down to ±0.1%
- Extremely low TCR down to ±10ppm/°C



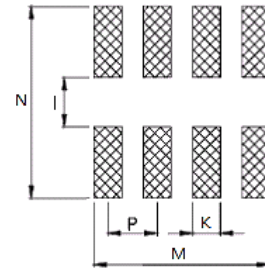
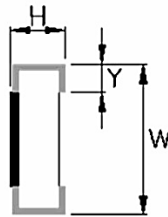
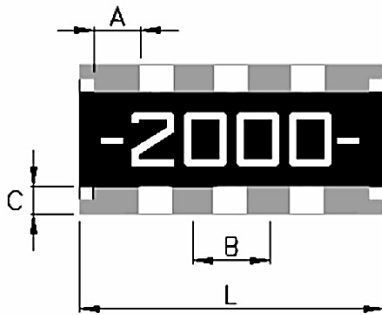
## ELECTRICAL CHARACTERISTICS

Size	Power Rating at 70°C	Operating Temp. Range	Max Operating Voltage	Max Overload Voltage	Resistance (Ω)				TCR (PPM/°C)
					±0.1%	±0.25%	±0.5%	±1.0%	
03 (0603)	1/16W	-55~+155°C	50V	100V	24.9~100K				±25, ±50

Note:

1. Operating Voltage =  $\sqrt{P \cdot R}$  or Maximum operating voltage listed above, whichever is lower.
2. Overload Voltage =  $2.5 \cdot \sqrt{P \cdot R}$  or Maximum overload voltage listed above, whichever is lower.
3. Customized specifications might be available upon request, please contact Meritek for more information.

## DIMENSIONS



Size	L (mm)	W (mm)	H (mm)	A (mm)	B (mm)	C (mm)	Y (mm)	M (mm)	N (mm)	K (mm)	I (mm)	P (mm)
03 (0603)	3.20±0.15	1.60±0.15	0.55±0.10	0.50±0.15	0.80±0.05	0.30±0.15	0.30±0.15	3.10	2.85	0.45	0.80	0.80

## PART NUMBERING SYSTEM

RXA 03 4D 3011 D G  
(1) (2) (3) (4) (5) (6)

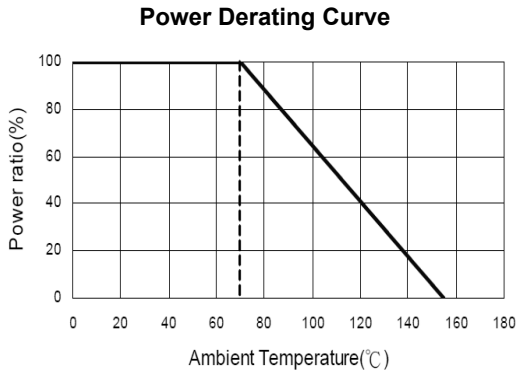
No	Item	Code	Description	
(1)	Product Code	RXA	Thin Film Array Chip Resistor Series	
(2)	Size Code	03	03: 0603x4	03: 0603
(3)	Number of Circuits	4D	4D: 4 circuits	4D: 4 circuits
(4)	Resistance	3011	3010Ω	1R0: 1.0Ω, 2491: 2490Ω
(5)	Tolerance	D	D: ±0.5%	B: ±0.1%, C: ±0.25%, F: ±1%
(6)	TCR (PPM/°C)	G	G: ±50	C: ±10, D: ±15, F: ±25

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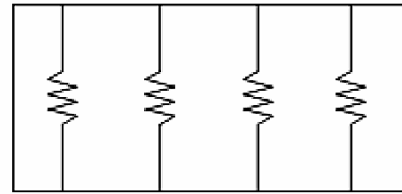
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## POWER DERATING CURVE



## Equivalent Circuit Diagram



RXA Series

## RELIABILITY TEST CONDITION AND REQUIREMENT

Test	Standard	Condition	Requirement
Temperature Coefficient of Resistance (T.C.R.)	MIL-STD-202 Method 304	+25/-55/+25/+125/+25°C	As Specified
Short Time Overload	JIS-C-5201-1 5.5	Overload Voltage for 5 seconds	$\Delta R \pm 0.1\%$
Insulation Resistance	MIL-STD-202 Method 302	Apply 100VDC for 1 minute	>1000M $\Omega$
Endurance	MIL-STD-202 Method 108A	70 $\pm$ 2°C, RCWV with 1.5 hrs "ON" and 0.5 hrs "OFF".	1000Hr: $\Delta R \pm 0.15\%$ 8000Hr: $\Delta R \pm 0.3\%$
Damp Heat with Load	MIL-STD-202 Method 103B	40 $\pm$ 2°C, 90~95% R.H. RCWV for 1000 hrs with 1.5 hrs "ON" and 0.5 hrs "OFF".	$\Delta R \pm 0.25\%$
Damp Heat with Load (85°C/ 85% R.H.)	MIL-STD-202 Method 103B	85 $\pm$ 2°C, 80~90% R.H. RCWV for 1000 hrs with 1.5 hrs "ON" and 0.5 hrs "OFF".	$\Delta R \pm 0.5\%$
Dry Heat	-	+125°C	1000Hr: $\Delta R \pm 0.25\%$ 8000Hr: $\Delta R \pm 0.5\%$
Bending Strength	JIS-C-5201-1 6.1.4	Bending amplitude 3 mm for 10 seconds	$\Delta R \pm 0.2\%$
Solderability	MIL-STD-202 Method 208H	245 $\pm$ 5°C for 3 seconds	95% min. coverage
Resistance to Soldering Heat	MIL-STD-202 Method 210E	260 $\pm$ 5°C for 10 seconds	$\Delta R \pm 0.2\%$
Dielectric Withstand Voltage	MIL-STD-202 Method 301	Apply Max Overload Voltage for 1 minute	100V
Thermal Shock	MIL-STD-202 Method 107G	-55°C ~ +150°C, 100 cycles	$\Delta R \pm 0.25\%$
Low Temperature Operation	JIS-C-5201-1 7.1	1 hour, -65°C followed by 45 minutes of RCWV	$\Delta R \pm 0.25\%$

Note:

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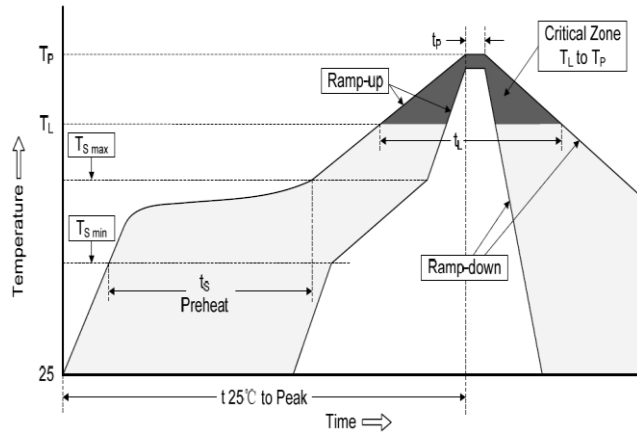
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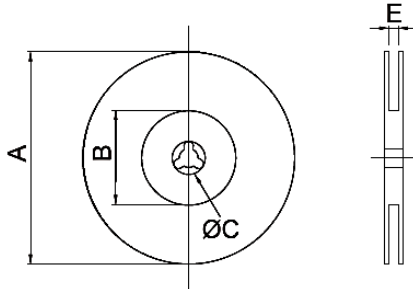
## RECOMMENDED SOLDERING PROFILES

Reflow Condition		
Pre Heat	Temp. Min $T_{s(min)}$	150°C
	Temp. Max $T_{s(max)}$	180°C
	Time (min. to max.) ( $t_s$ )	90~120 seconds
Average ramp up rate ( $T_L$ ) to peak		3°C/second max.
$T_{s(max)}$ to $T_L$ (Ramp-up rate)		3°C/second max.
Reflow	Temp. ( $T_L$ )	220°C
	Time (min. to max.) ( $t_L$ )	60 seconds max.
Peak Temperature ( $T_P$ )		260°C ~265°C
Time within 5°C of actual peak Temperature ( $t_p$ )		10 seconds max.
Ramp-down Rate		6°C/second

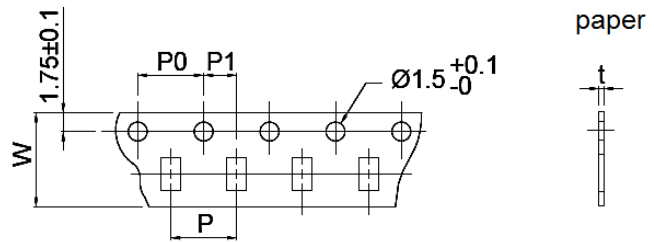


## PACKAGING DIMENSION

CARRIER TAPE REELS



TAPE DIMENSIONS (mm)



Series	Reel Dimension (mm)				Tape Dimensions (mm)					Parts Per Reel
	A ±2.0	B ±1.0	C ±0.5	E ±0.5	W ±0.20	P ±0.10	P0 ±0.05	P1 ±0.05	T ±0.10	Paper 7"
RXA03	178.0	60.0	13.0	9.0	8.00	4.00	4.00	2.00	0.85	5,000

\*Specifications subject to change without notice.