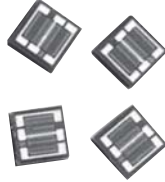


## Dual Value, Chip Resistor Center Tap



Actual Size

These tantalum chips combine excellent stability 0.07 % (2000 hours, rated power at 70 °C) with great power handling capacity. Two bonding pads per termination allow greater flexibility in hybrid layout design.

### FEATURES

- Center tap feature
- Resistor material: self - passivating Tantalum Nitride
- Silicon substrate for good power dissipation
- Low cost

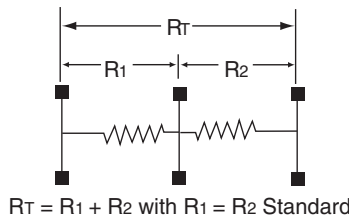


**RoHS**  
COMPLIANT

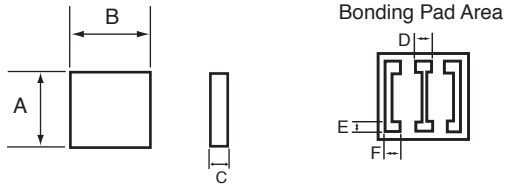
### TYPICAL PERFORMANCE

	ABS	TRACKING
TCR	100 ppm/°C	5 ppm/°C
	ABS	RATIO
TOL	0.5 %	0.5 %

### SCHEMATIC



STANDARD ELECTRICAL SPECIFICATIONS		
TEST	SPECIFICATIONS	CONDITIONS
MATERIAL	TANTALUM NITRIDE	
Resistance Range	50 ohms to 500 Kohms	for $R_T = R_1 + R_2$
TCR:	Tracking	$\pm 5$ ppm/°C
	Absolute	$\pm 100$ ppm/°C ( $\pm 50$ ppm/°C on Request)
Tolerance:	Ratio	1/1 standard
	Absolute	$\pm 0.5$ %, $\pm 1$ %, $\pm 2$ %
	Matching	$\pm 0.5$ % Standard
Power Dissipation	250 mW at + 25 °C, 125 mW at + 70 °C, 50 mW at + 125 °C	
Stability	$\pm 0.07$ % typical, $\pm 0.1$ Max.	2000 hrs. at +70 °C under Pn
Working Voltage	50 Volts DC on $R_T$	
Operating Temperature Range	- 55 °C to + 155 °C	
Storage Temperature Range	- 55 °C to + 155 °C	
Noise	< - 35 dB typical	MIL-STD-202 Method 308
Thermal EMF	0.01 $\mu$ V/°C	
Shelf Life Stability	100 ppm	1 year at + 25 °C

**DIMENSIONS** in inches and millimeters


DIMENSION	INCHES	MILLIMETERS
A	0.03 ± 0.004	0.76 ± 0.10
B	0.03 ± 0.004	0.76 ± 0.10
C	0.01 to 0.015	0.25 to 0.40
D	0.004	0.10
E	0.006	0.15
F	0.006	0.15

MECHANICAL SPECIFICATIONS	
Resistive Element	Tantalum Nitride
Substrate Material	Silicon
Passivation	Autopassivation
Bonding Pads	Aluminium

GLOBAL PART NUMBER INFORMATION																																		
New Global Part Numbering: TA33-100KF1MD0016																																		
<table style="width: 100%; text-align: center; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; padding: 2px;">T</td> <td style="border: 1px solid black; padding: 2px;">A</td> <td style="border: 1px solid black; padding: 2px;">3</td> <td style="border: 1px solid black; padding: 2px;">3</td> <td style="border: 1px solid black; padding: 2px;">-</td> <td style="border: 1px solid black; padding: 2px;">5</td> <td style="border: 1px solid black; padding: 2px;">K</td> <td style="border: 1px solid black; padding: 2px;">2</td> <td style="border: 1px solid black; padding: 2px;">F</td> <td style="border: 1px solid black; padding: 2px;">2</td> <td style="border: 1px solid black; padding: 2px;">5</td> <td style="border: 1px solid black; padding: 2px;">K</td> <td style="border: 1px solid black; padding: 2px;">D</td> <td style="border: 1px solid black; padding: 2px;">0</td> <td style="border: 1px solid black; padding: 2px;">0</td> <td style="border: 1px solid black; padding: 2px;">1</td> <td style="border: 1px solid black; padding: 2px;">6</td> </tr> <tr> <td colspan="4" style="border: 1px solid black; padding: 2px;">GLOBAL MODEL</td> <td colspan="3" style="border: 1px solid black; padding: 2px;">R1 VALUE Decimal R, K or M</td> <td colspan="3" style="border: 1px solid black; padding: 2px;">ABS. TOLERANCE D = ± 0.5 % F = ± 1.0 % G = ± 2.0 %</td> <td colspan="2" style="border: 1px solid black; padding: 2px;">R2 VALUE Decimal R, K or M</td> <td colspan="2" style="border: 1px solid black; padding: 2px;">RAT TOL D = ± 0.5 %</td> <td colspan="2" style="border: 1px solid black; padding: 2px;">SPECIAL</td> </tr> </table>		T	A	3	3	-	5	K	2	F	2	5	K	D	0	0	1	6	GLOBAL MODEL				R1 VALUE Decimal R, K or M			ABS. TOLERANCE D = ± 0.5 % F = ± 1.0 % G = ± 2.0 %			R2 VALUE Decimal R, K or M		RAT TOL D = ± 0.5 %		SPECIAL	
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Historical Part Number example: TA 33    5K2    25K    1%    0.5%    R0016																																		



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