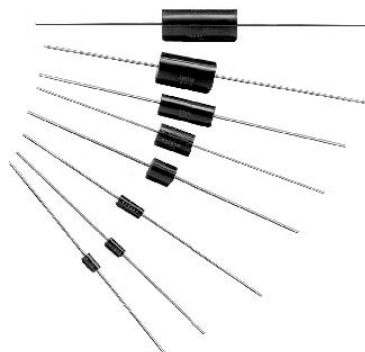


Ultra High-Precision COTS Bulk Metal® Z-Foil Technology Tubular Axial Lead Resistors with TCR of ± 0.05 ppm/°C, Tolerance to $\pm 0.01\%$ and Load-Life Stability of $\pm 0.005\%$

FEATURES

- Temperature coefficient of resistance (TCR):
 ± 0.2 ppm/°C nominal (-55°C to $+125^{\circ}\text{C}$, $+25^{\circ}\text{C}$ Ref.)
 ± 0.05 ppm/°C ty nominal (0°C to $+60^{\circ}\text{C}$)
- Resistance range: 5 Ω to 300 k Ω
- VFR resistors are not restricted to standard values; specific “as required” (e.g., 1K2345 vs. 1K)
- Tolerance: to $\pm 0.01\%$
- Load-life stability: $\pm 0.005\%$ (50 ppm) at 70°C , 2000 h at rated power
- Electrostatic discharge (ESD): up to 25 000 V
- Power rating: 0.2 W to 1.0 W at 70°C
- Terminal finish: lead (Pb)-free, tin/lead



Available
RoHS*
COMPLIANT

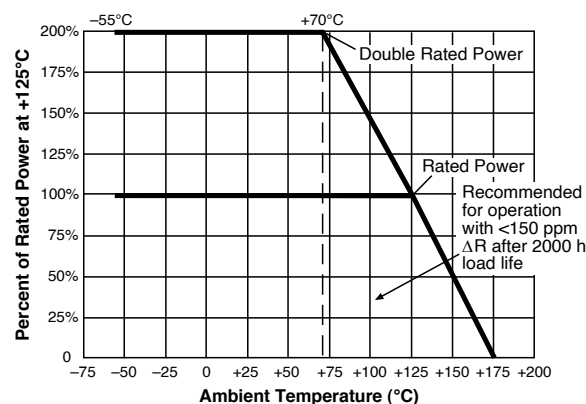
MAXIMUM TCR PPM/°C AND MAXIMUM SPREAD⁽¹⁾

Values	-55°C to $+125^{\circ}\text{C}$, $+25^{\circ}\text{C}$ Ref.
5R to <15R	$\pm 0.2 \pm 4.8$
15R to <25R	$\pm 0.2 \pm 3.8$
25R to <50R	$\pm 0.2 \pm 2.8$
50R to <100R	$\pm 0.2 \pm 2.3$
>100R	$\pm 0.2 \pm 1.8$

Note

(1) For non-standard requests, please contact application engineering

POWER DERATING CURVE



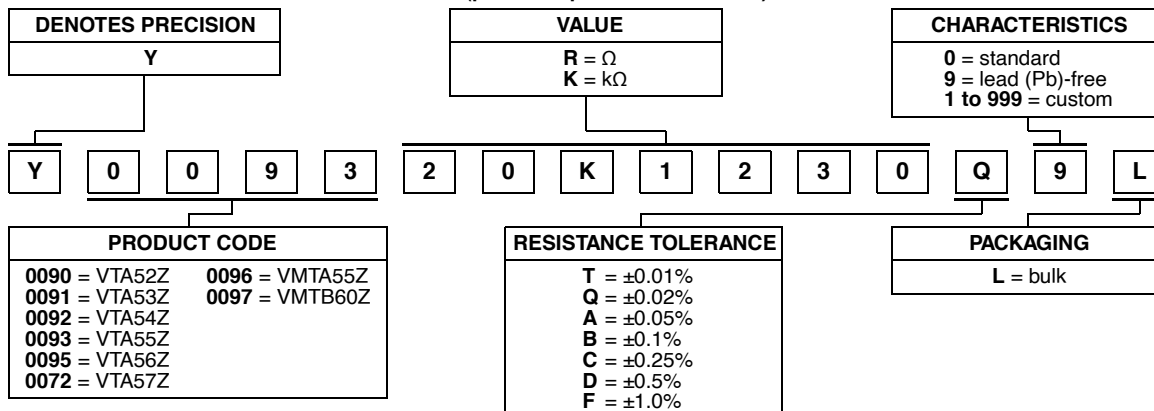
MODEL SELECTION

Model	MIL Style	Power		Maximum Working Voltage	Resistance Range (Ω)	Tightest Tolerance
		at $+70^{\circ}\text{C}$	at $+125^{\circ}\text{C}$			
VTA57Z	RBR57	0.25 W	0.125 W	160 V	5 to 24R9 25 to 100k	$\pm 0.1\%$ $\pm 0.01\%$
VTA56Z	RBR56	0.25 W	0.125 W	160 V	5 to 24R9 25 to 100k	$\pm 0.1\%$ $\pm 0.01\%$
VTA55Z	RBR55	0.3 W	0.15 W	175 V	5 to 24R9 25 to 100k	$\pm 0.1\%$ $\pm 0.01\%$
VTA54Z	RBR54	0.5 W	0.25 W	300 V	5 to 24R9 25 to 200K	$\pm 0.1\%$ $\pm 0.01\%$
VTA53Z	RBR53	0.66 W	0.33 W	350 V	5 to 24R9 25 to 200K	$\pm 0.1\%$ $\pm 0.01\%$
VTA52Z	RBR53	1.0 W	0.5 W	350 V	5 to 24R9 25 to 300K	$\pm 0.1\%$ $\pm 0.01\%$
VMTA55Z	RNC55	0.2 W	0.1 W	75 V	5 to 49R9 50 to 30K	$\pm 0.1\%$ $\pm 0.01\%$
VMTB60Z	RNC60	0.25 W	0.125 W	125 V	5 to 49R9 50 to 60K	$\pm 0.1\%$ $\pm 0.01\%$

GLOBAL PART NUMBER INFORMATION

(1)

NEW GLOBAL PART NUMBER: Y009320K1230Q9L (preferred part number format)



FOR EXAMPLE: ABOVE GLOBAL ORDER Y0093 20K1230 Q 9 L:

TYPE: VTA55Z

VALUE: 20.123 $k\Omega$ ABSOLUTE TOLERANCE: $\pm 0.02\%$

TERMINATION: lead (Pb)-free

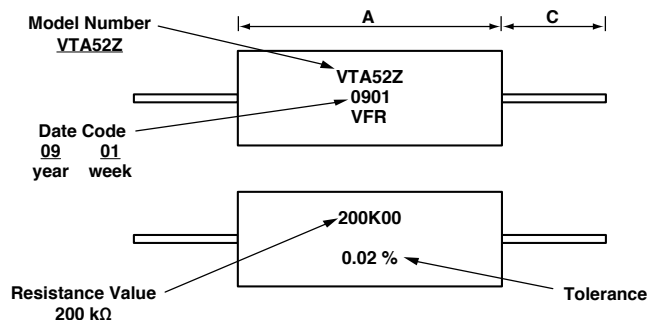
PACKAGING: bulk

Note

(1) For non-standard requests, please contact Application Engineering

VTAZ/VMTAZ SERIES STANDARD PRINTING / DIMENSIONS

in Inches and Millimeters



Model	MIL Size	Body								Lead			
		Length (A)				Diameter (B)				Length (C)		Diameter (D)	
		Inch		mm		Inch		mm		Inch	mm	Inch	mm
VTA57Z	RBR57	0.374	+0.020 -0.020	9.5	± 0.05	0.189	+0.008 -0.008	4.80	± 0.2	1.5 min.	38.10	0.025	0.64
VTA56Z	RBR56	0.356	+0.005 -0.010	9.04	+0.13 -0.25	0.260	+0.005 -0.015	6.60	+0.13 -0.38	1.5 min.	38.10	0.032	0.81
VTA55Z	RBR55	0.500 ± 0.020		12.70 ± 0.51		0.260	+0.005 -0.010	6.60	+0.13 -0.25	1.5 min.	38.10	0.032	0.81
VTA54Z	RBR54	0.750	+0.020 -0.032	19.05	+0.51 -0.81	0.260	+0.005 -0.010	6.60	+0.13 -0.25	1.5 min.	38.10	0.032	0.81
VTA53Z	RBR53	0.750 ± 0.020		19.05 ± 0.51		0.375	± 0.015	9.53	± 0.38	1.5 min.	38.10	0.032	0.81
VTA52Z	RBR52	1.000	+0.020 -0.032	25.40	+0.51 -0.81	0.375	± 0.015	9.53	± 0.38	1.35 min.	34.29	0.032	0.81
VMTA55Z	RNC55	0.270 ± 0.005		6.86 ± 0.13		0.120	+0.005 -0.010	3.05	+0.13 -0.25	1.5 min.	38.10	0.025	0.64
VMTB60Z	RNC30	0.375 ± 0.005		9.53 ± 0.13		0.160	± 0.005	4.06	± 0.13	1.5 min.	38.10	0.025	0.64