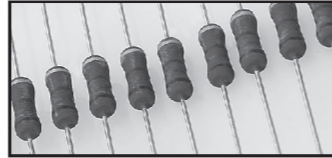


# Leaded Metal Film Precision Resistors

## Features

- Low Noise
- Low TCR  $\pm 15 \sim 100 \text{ppm}/^\circ\text{C}$
- High Precision from  $\pm 0.1\% \sim 1\%$
- Usually broad selection of power rating 1/8w, 1/4w, 1/2w, 1w, 2w, 3w, at 70 °C
- Lead(Pb)free and RoHS compliant



## GENERAL SPECIFICATIONS (HIGH POWER)

Type	Power Rating At 70 °C	Operating Temp. Range	Max Working Voltage	Max Overload Voltage	Dielectric Withstanding Voltage	Resistance Range $\leq 0.25\% \text{ E192}$	Resistance Range $\leq 0.50\% \text{ E96}$	TCR( $\pm \text{ppm}/^\circ\text{C}$ )
0318 (0318H)	1/8W (1/4W)	-55 °C ~155 °C	200V (200V)	400V (400V)	300V (400V)	100Ω ~100KΩ	10Ω ~1MΩ	±15
0623 (0623H)	1/4W (1/2W)		250V (300V)	500V (600V)	500V (500V)			
0932 (0932H)	1/2W (1W)		350V (400V)	700V (800V)	500V (700V)			
1145 (1145H)	1W (2W)		450V (500V)	1000V (1000V)	1000V (1000V)			
1550 (1550H)	2W (3W)		500V (500V)	1000V (1000V)	1000V (1000V)			

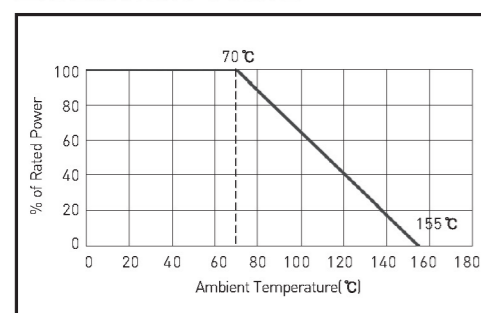
## CHARACTERISTICS

Short Time Overload	$\pm [0.25\% + 0.05\Omega]$	JIS-C 5202-5.5 RCW*2.5 or maximum Overloading Voltage, 5secs.
Temperature Coefficient	By Type	Resistance value at room temperature and room Temperature +100 °C
Dielectric Withstanding Voltage	By Type	MIL-STD-202F Method 301 Apply maximum Overload Voltage for 1minute
Pulse Overload	$\pm [0.75\% + 0.05\Omega]$	JIS-C5205 5.8 4 times RCW for 10000cycles (1sec. on, 25secs. off)
Insulation Resistance	> 1000MΩ	MIL-STD-202F Method 302 Apply 100VDC for 1 minute
Load Life	$\pm [1.5\% + 0.05\Omega]$	MIL-STD-202F Method 108A RCW, 70 °C, 1.5hours on, 0.5hours off, total 1000~1048hours
Humidity(Steady State)	$\pm [1.5\% + 0.05\Omega]$	MIL-STD-202F Method 103B 40 °C, 90~95%RH, RCW 1.5hours on, 0.5hours off Total 1000~1048hours
Solderability	95% Minimum Coverage	MIL-STD 202F Method 208H 245 °C $\pm 5^\circ\text{C}$ , 5 $\pm 0.5$ (secs.)
Resistance To Solvent	No deterioration of Coatings and markings	JIS-C5202 6.9 Trichothane for 1minute with ultrasonic Direct Load for 10secs.
Terminal Strength	Tensile : $\geq 2.5\text{Kg}$	In the direction off the terminal leads.
Shelf Life	$\Delta R = \pm 0.1\%$	12months at room temperature 25 $\pm 3^\circ\text{C}$ , 80%RH maximum

## DIMENSIONS [mm]

Type	L	D	H	D
0318	3.3+0.7/-0.2	1.8±0.3	29±2.0	0.45±0.03
0623	6.3±0.5	2.3±0.3	28±2.0	0.55±0.03
0932	9.0±0.5	3.2±0.5	26±2.0	0.65±0.03
1145	11.5±1.0	4.5±0.5	35±2.0	0.78±0.03
1550	15.5±1.0	5.0±0.5	32±2.0	0.78±0.03

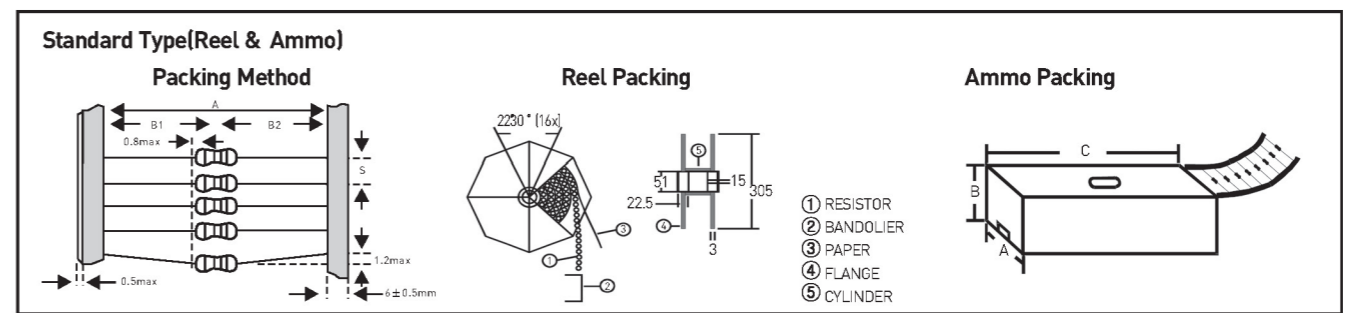
## DERATING CURVE



## ORDERING PROCEDURE EXAMPLE

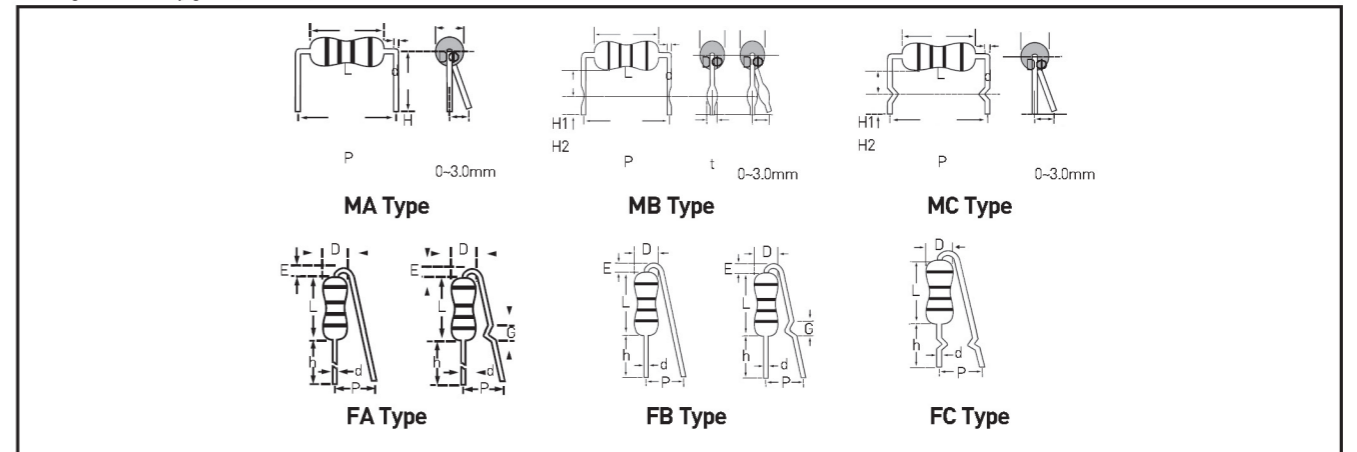
<b>MFR</b>	<b>0623</b>	<b>B</b>	<b>T</b>	<b>C</b>	<b>V</b>	<b>1001</b>	<b>MA</b>
Model #	Dimensions	Tolerance	Packing	TCR	Power Rating	Resistance	Special
0623: 6.30X2.30mm	B: $\pm 0.1\%$	A: Ammo	N: $\pm 15 \text{ppm}/^\circ\text{C}$	R: 3W	R100: 0.1Ω	None: Standard	MA: MA-type
0932: 9.00X3.20mm	C: $\pm 0.25\%$	B: Bulk	C: $\pm 25 \text{ppm}/^\circ\text{C}$	S: 2W	0100: 10.0Ω	MA: MA-type	MB: MB-type
1145: 11.5X4.50mm	D: $\pm 0.5\%$	T: Taping Reel	D: $\pm 50 \text{ppm}/^\circ\text{C}$	T: 1W	1002: 10000Ω	MC: MC-type	MC: MC-type
1550: 15.5X5.00mm	F: $\pm 1\%$		E: $\pm 100 \text{ppm}/^\circ\text{C}$	U: 1/2W	4992: 49900Ω	FA: FA-type	FA: FA-type
				V: 1/4W	1003: 100000Ω	FB: FB-type	FB: FB-type
				W: 1/8W	1004: 1000000Ω	FC: FC-type	FC: FC-type
						PA: PA-type	PA: PA-type
						PB: PB-type	PB: PB-type
						PC: PC-type	PC: PC-type

## TAPING/PACKING SPECIFICATIONS



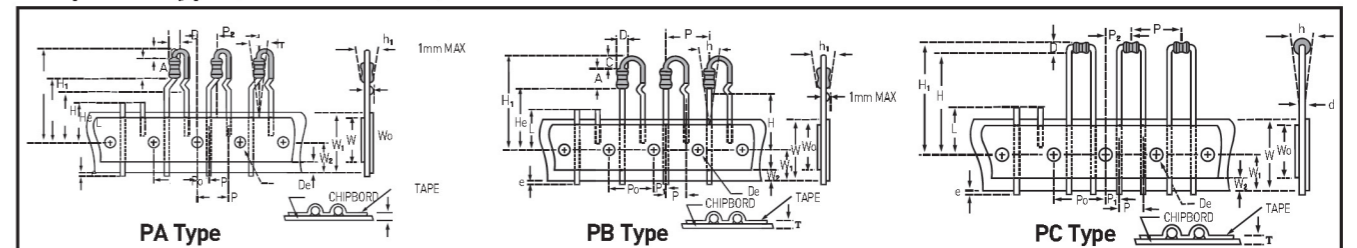
Packing Codes	Packing Methods			Reel Packing		Ammo Packing			
	A	B1-B2	S	Across Flange(A)	Qty	A	B	C	Qty
0318	52+1/-0	1.2	5	72	5,000	-	-	-	-
0623	52+1/-0	1.2	5	72	5,000	-	-	-	-
0932	52+1/-0	1.2	5	72	2,500	-	-	-	-
1145	52+1/-0	1.5	5	95	2,000	-	-	-	-
1550	52+1/-0	1.5	10	95	1,000	-	-	-	-
0318	26+1/-0	1.0	5	-	-	80	75	264	5,000
0623	26+1/-0	1.0	5	-	-	80	105	264	5,000
0932	52+1/-0	1.2	5	-	-	80	46	264	1,000
1145	73+1/-0	1.5	5	-	-	103	82	265	1,000
1550	73+1/-0	1.5	10	-	-	103	96	265	1,000

## Special Type (Bulk)



\*Please ask RARA for more information.

## Special Type (Reel & Ammo)



Dimension	AMMO			REEL				
	A	B	C	A	B	C	W1	W2
Unit:mm	53	120	325	31	76	312	44	50
Qty:EA	2000/3000			2500/3000				

\*Please ask RARA for more information.