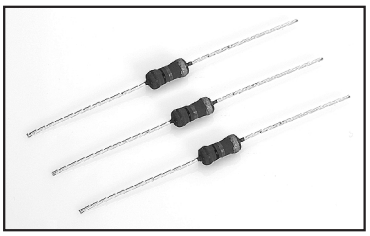
Precision Metal Film Leaded Resistors

- Excellent overall stability and ohmic contact
- Low TCR ±5~100ppm/℃
- High Precision from ±0.05%~1%
- High power rating up to 3Watts
- Applications: Automotive, telecommunication and medical equipment.



GENERAL SPECIFICATIONS

Type	Power Rating at 70℃	Operating Temp. Range	Max Working Voltage	Max Overload Voltage	Resistance Range					TCR (ppm/℃)
					±0.05%	±0.1%	±0.25%	±0.5%	±1%	
0318 (0318H)	1/8W (1/4W) (2/5W)	-55℃~155℃	200V (200V) (250V)	400V (400V) (500V)	-	10Ω~1MΩ		10Ω~4.99MΩ		±15
						10Ω~1MΩ		10Ω~10MΩ		±25, ±50
					-		1Ω~1MΩ	1Ω~10MΩ	0.1Ω~10MΩ	±100
0623 (0623H)	1/4W (1/2W) (3/5W)		250V (300V) (350V)	500V (600V) (700V)		10Ω~1MΩ				±5, ±10
						10Ω~1MΩ		10Ω~10MΩ		±15, ±25
					-	10Ω~1MΩ		10Ω~10MΩ		±50
					-		1Ω~1MΩ	1Ω~10MΩ	0.1Ω~10MΩ	±100
0932 (0932H)	1/2W (1W)		350V (400V)	700V (800V)		10Ω~1MΩ				±5, ±10
						10Ω~1MΩ		10Ω~10MΩ		±15, ±25
					-	10Ω~1MΩ		10Ω~10MΩ		±50
					-		1Ω~1MΩ	1Ω~10MΩ	0.1Ω~10MΩ	±100
1145 (1145H)	1W (2W)		450V (500V)	1000V (1000V)		10Ω~1MΩ		10Ω~4.99MΩ		±15
					-	10Ω~1MΩ		10Ω~10MΩ		±25, ±50
					-		1Ω~1MΩ	1Ω~10MΩ	0.1Ω~10MΩ	±100
1550 (1550H)	2W (3W)		500V (500V)	1000V (1000V)		10Ω~1MΩ		10Ω~4.99MΩ		±15
					-	10Ω~1MΩ		10Ω~10MΩ		±25 ±50
					-		1Ω~1MΩ	1Ω~10MΩ	0.1Ω~10MΩ	±100

CHARACTERISTICS

Values in [ ] mean change in Ω after test

Short Time Overload	±[0.25%+0.05Ω]	RCWV*2.5 or maximum overloading voltage, 5seconds
Temperature Coefficient	By Type	Resistance value at room temperature and room temperature +100℃
Pulse Overload	±[0.75%+0.05Ω]	4 times RCWV for 10000cycles with 1second on, 25seconds off
Insulation Resistance	>1000MΩ	Apply 100VDC for 1minute
Load Life	±[0.2%+0.05Ω]	70±2℃, maximum working voltage for 100hours with 1.5hours "ON" and 0.5hours "OFF"
Moisture load Life	±[0.3%+0.05Ω]	40±2℃, 90~95% RH maximum working voltage for 1000hours with 1.5hours "ON" and 0.5hour "OFF"
Solderability	90% Coverage minimum	245±5℃ for 3seconds
Resistance To Solvent	No deterioration of coatings and markings	Trichroethane for 1minute with ultrasonic
Terminal Strength	Tensile: ≥2.5Kg	Direct Load for 10seconds. In the direction off the terminal leads
Shelf Life	±[0.1%+0.05Ω]	12months at room temperature 25±3℃, 80% RH maximum

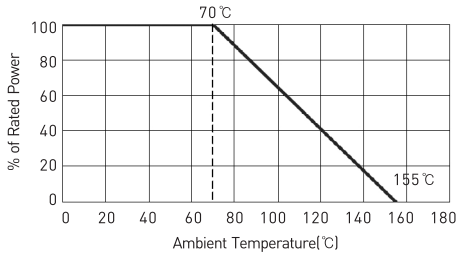
DIMENSIONS [mm]



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

Tel: 82-32-817-4325 Fax: 82-32-817-4329

DERATING CURVE



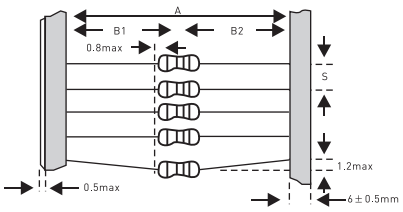
ORDERING PROCEDURE EXAMPLE

MFR	0623	B	T	C	V	1001	MA
Model #	Dimensions	Tolerance	Packing	TCR	Power Rating	Resistance	Special
	0318: 3.30x1.8mm 0623: 6.3X2.3mm 0932: 9.0X3.2mm 1145: 11.5X4.5mm 1550: 15.5X5.0mm	A: ±0.05% B: ±0.1% C: ±0.25% D: ±0.5% F: ±1%	A: Ammo B: Bulk T: Taping Reel	N: ±15(ppm/℃) C: ±25(ppm/℃) D: ±50(ppm/℃) E: ±100(ppm/℃)	None:Standard R: 3W S: 2W T: 1W U: 1/2W V: 1/4W W: 1/8W	R100: 0.1Ω 0100: 10.0Ω 2201: 2200Ω 1002: 10000Ω 4992: 49900Ω 1003: 100000Ω 1004: 1000000Ω	None: Standard MA: MA-type MB: MB-type MC: MC-type FA: FA-type FB: FB-type FC: FC-type

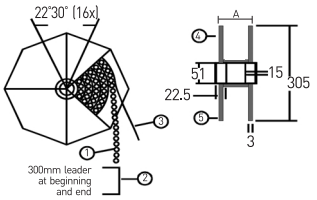
TAPING/PACKING SPECIFICATIONS

Standard Type(Reel & Ammo)

Packing Method

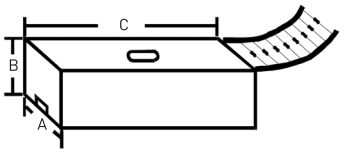


Reel Packing



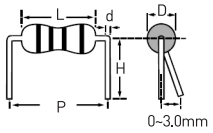
① RESISTOR
② BANDOLIER
③ PAPER
④ FLANGE
⑤ CYLINDER

Ammo Packing

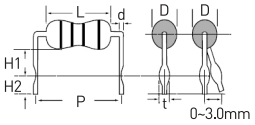


Packing Codes	Packing Methods			Reel Packing		Ammo Packing			
	A	B1-B2	S	Across Flange(A)	Qty[pcs]	A	B	C	Qty[pcs]
0318	52+1/-0	1.2	5	72	5,000	-	-	-	-
0623	52+1/-0	1.2	5	72	5,000	-	-	-	-
0932	52+1/-0	1.2	5	72	2,500	-	-	-	-
1145	52+1/-0	1.5	5	95	2,000	-	-	-	-
1550	52+1/-0	1.5	10	95	1,000	-	-	-	-
0318	26+1/-0	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

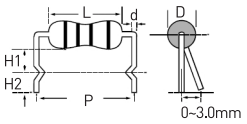
SPECIAL TYPE (BULK)



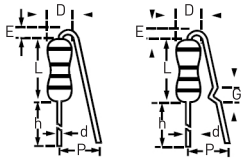
MA Type



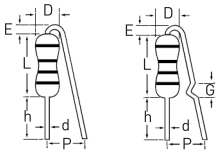
MB Type



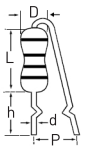
MC Type



FA Type



FB Type



FC Type

※Please ask RARA for more information.

Product Type	Type	P	H /H1/h	H2 /G	t	D	L	d	E
0318	MA	5.00±1	5.00±1	-	-	1.8±3	3.30±0.4	0.45±0.03	-
0623	MA	10.0±1	10.0±1	-	-	2.3±0.3	6.30±0.5	0.55±0.03	-
	FA	10.0±1	28.0±2	2.00±0.5	-				2.00±0.5
	FB	10.0±1	8.00±1	2.00±0.5	-				2.00±0.5
0932	MA	12.5±1	10.0±1	-	-	3.2±0.5	9.00±0.5	0.65±0.03	-
	FC	6.00±1	10.0±1	-	-				-
1145	MA	15.0±1	12.5±1	-	-	4.5±0.5	11.5±1.0	0.78±0.03	-
	MB	15.0±1	6.00±1	5.00±1.0	1.4±0.2				-
	MC	15.0±1	6.00±1	5.00±1.0	-				-
	FC	6.00±1	10.0±1	-	-				-
1550	MA	20.0±1	15.0±1	-	-	5.0±0.5	15.5±1.0	0.78±0.03	-
	MB	20.0±1	10.0±1	5.00±1.0	1.4±0.2				-
	MC	20.0±1	10.0±1	5.00±1.0	-				-
	FC	6.00±1	10.0±1	-	-				-