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Carbon Film Resistors (R · F)

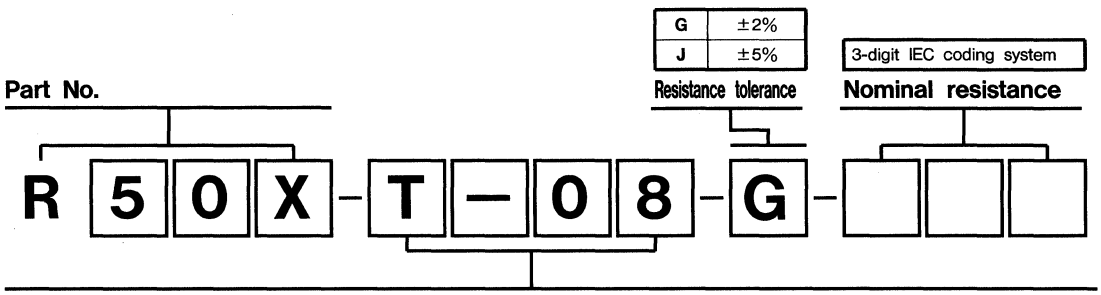
(Standard : JIS C 6408)

From the preparation of component materials to final production, all stages are conducted in-house with highly advanced manufacturing technology to assure stable quality.

Part No.	Power rating (70℃)	Maximum working voltage (V)	Resistance tolerance	Resistnace range	Operating ambient temperature (℃)
R20	1/5W (0.20W) or 1/4W (0.25W)	250	J (±5%)	0.47 Ω～ 2.2MΩ	−55～+155
			G (±2%)	10 Ω～270 kΩ	
R25X	1/3W (0.33W)	300	J (±5%)	0.47 Ω～ 3.3MΩ	−55～+155
			G (±2%)	10 Ω～ 3.3MΩ	
R50X	1/2W (0.50W)	350	J (±5%)	0.47 Ω～ 5.1MΩ	−55～+155
			G (±2%)	10 Ω～ 5.1MΩ	
R75X	3/4W (0.75W)	350	J (±5%)	0.47 Ω～ 5.1MΩ	−55～+155
			G (±2%)	10 Ω～ 5.1MΩ	
F20 (Non-flammable)	1/4W (0.25W)	250	J (±5%)	0.47 Ω～100 kΩ	−55～+155
			G (±2%)	10 Ω～100 kΩ	
F25X (Non-flammable)	1/3W (0.33W)	300	J (±5%)	0.47 Ω～ 1.5MΩ	−55～+155
			G (±2%)	10 Ω～100 kΩ	
F50X (Non-flammable)	1/2W (0.50W)	350	J (±5%)	0.47 Ω～100 kΩ	−55～+155
			G (±2%)	10 Ω～100 kΩ	
F75X (Non-flammable)	3/4W (0.75W)	350	J (±5%)	0.47 Ω～ 56 kΩ	−55～+155
			G (±2%)	10 Ω～ 56 kΩ	

Notes : 1.Besides the resistors listed in the above table. 0Ω resistors (50mΩ or less) are available in the R20 and R25X series.
2.Resistors less than 10Ω are metal film.
3.General products are fire retardant. (Comform to UL94V-0).
4.High resistance resistors must be used under well designed operating conditions (load factor, voltage).
5.R75X : old R50A.

●Product Designation



Packaging and forming specifications

T-08	R50X/75X,F50X/75X	Taping	Axial	52mm wide	Ammo Box	1,000
T-29	R20/25X,F20/25X					2,000
T04P	R20					5,000
T-24	R20/25X/50X,F20/25X/50X			26mm wide	Ammo Box	2,000
T-23	R20					5,000
T-22	R20					6,000
T42V	R20		Radial	5mm pitch parallel	Ammo Box	2,000
T41X	R20				Reel	2,500
T34V	R25X			5mm pitch lengthwise	Ammo Box	2,000
T31X	R25X				Reel	2,500
T36V	R20			2.5mm pitch lengthwise	Ammo Box	2,000
T35X	R20				Reel	2,500
R-02	R20/25X/50X/75X,F20/25X/50X/75X	Bulk	Straight		Polyethylene bag	1,000
FC02	R20,F20		Lead forming	FCR (pitch parallel) 5mm pitch	Polyethylene bag	1,000
FC06	R25X,F25X			10mm pitch	Polyethylene bag	1,000
FC16	R50X,F50X					1,000
FC10	R75X,F75X			12.5mm pitch	Polyethylene bag	1,000
ELR	R20/50X			ELR (pitch lengthwise)	Polyethylene bag	1,000
EL03	R25X					1,000

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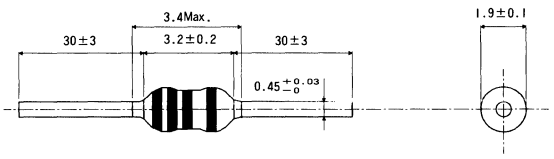
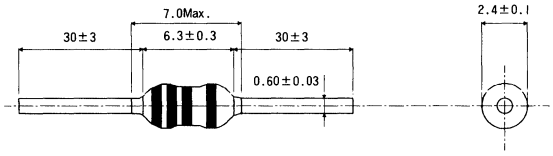
Dimensions list

(Unit : mm)

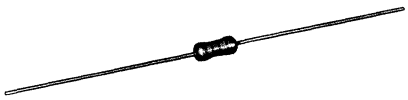
R20

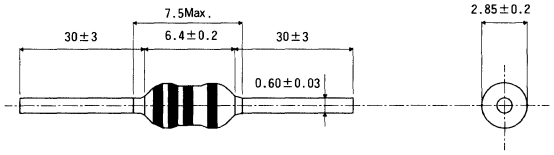


R25X

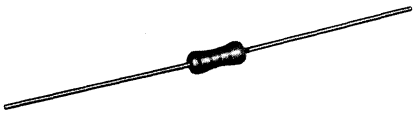


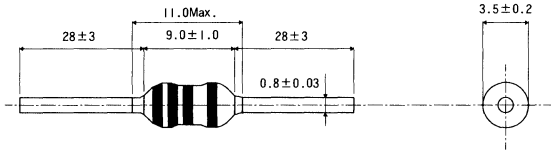
R50X



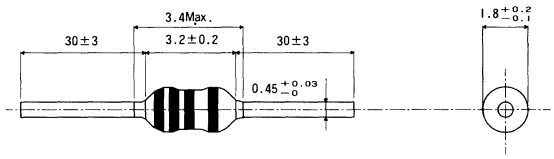


R75X

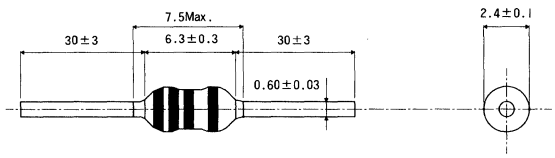




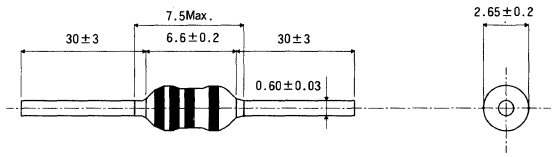
F20



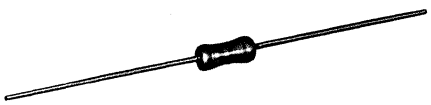
F25X

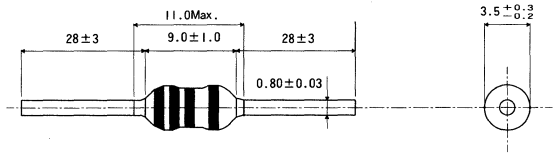


F50X



F75X





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Carbon Film Resistors (R・F)

Packaging

Part No.	Packaging type		Code	Packaging style	Quantity (pcs)	Standard product・Semi-standard product	
						J (±5%)	G (±2%)
R20	Bulk		R-02・FC02・ELR	Polyethylene bag	1,000	◎	○
	Axial	52mm wide	T-29	Ammo Box	2,000	◎	○
			T04P		5,000	◎	○
		26mm wide	T-24		2,000	◎	○
			T-23		5,000	○	○
			T-22		6,000	◎	○
	Radial	5mm pitch parallel	T42V	Ammo Box	2,000	◎	○
			T41X	Reel	2,500	○	○
		2.5mm pitch lengthwise	T36V	Ammo Box	2,000	○	○
			T35X	Reel	2,500	○	○
R25X	Bulk		R-02・FC06・EL03	Polyethylene bag	1,000	◎	○
	Axial	52mm wide	T-29	Ammo Box	2,000	◎	○
		26mm wide	T-24		2,000	◎	○
	Radial	5mm pitch lengthwise	T34V	Ammo Box	2,000	◎	○
			T31X	Reel	2,500	○	○
R50X	Bulk		R-02・FC16・ELR	Polyethylene bag	1,000	◎	○
	Axial	52mm wide	T-08	Ammo Box	1,000	◎	○
		26mm wide	T-24		2,000	◎	○
	Radial	5mm pitch lengthwise	T34V	Ammo Box	2,000	◎	○
			T31X	Reel	2,500	○	○
R75X	Bulk		R-02・FC10	Polyethylene bag	1,000	◎	○
	Axial	52mm wide	T-08	Ammo Box	1,000	○	○
F20	Bulk		R-02	Polyethylene bag	1,000	○	○
	Axial	52mm wide	T-29	Ammo Box	2,000	○	○
		26mm wide	T-24		2,000	○	○
F25X	Bulk		R-02	Polyethylene bag	1,000	○	○
	Axial	52mm wide	T-29	Ammo Box	2,000	○	○
		26mm wide	T-24		2,000	○	○
F50X	Bulk		R-02	Polyethylene bag	1,000	○	○
	Axial	52mm wide	T-08	Ammo Box	1,000	○	○
		26mm wide	T-24		2,000	△	△
F75X	Bulk		R-02	Polyethylene bag	1,000	○	○
	Axial	52mm wide	T-08	Ammo Box	1,000	○	○

◎ : Standard product ○ : Semi-standard product △ : Special specification

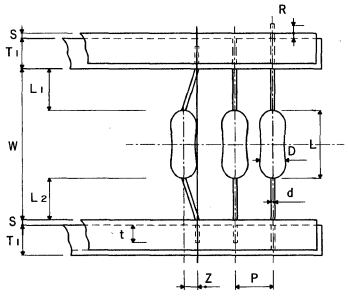
●Packaging Specifications

●Taping (Axial)

(Unit : mm)

R20 F20

R25X R50X R75X F25X F50X F75X



R20 F20

		26mm	52mm
L	Length	See page 351	
D	Outer diameter		
d	Lead wire diameter		
$\|L_2-L_1\|$	Off-center	0.2Max.	0.5Max.
P	Pitch	5.0±0.3	5.08±0.38
R	Lead wire projection	0	
S	Tape shift	0.1Min.	
T_1	Base tape width	6.0±0.5	
W	Inner tape width	$26.0^{+0.2}_{-0}$	52.0±1.0
t	Lead wire connection length	4.0Min.	
Z	Lead wire curvature	1.0Max.	

R25X R50X R75X F25X F50X F75X

		26mm	52mm
L	Length	See page 351	
D	Outer diameter		
d	Lead wire diameter		
$\|L_2-L_1\|$	Off-center	1.0Max.	
P	Pitch	5.0±0.3	5.08±0.38
R	Lead wire projection	0	
S	Tape shift	0.1Min.	
T_1	Tape width	6.0±0.5	
W	Inner tape width	$26.5^{+1.0}_{-0.5}$	$52.4^{+1.6}_{-1.4}$
t	Lead wire connection length	4.0Min.	
Z	Lead wire curvature	1.0Max.	

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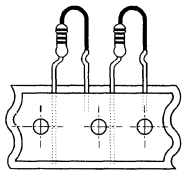
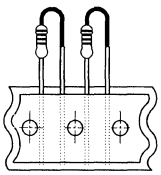
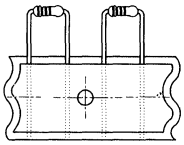
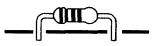
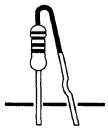
●Taping (Radial)

 (5mm pitch lengthwise) R25X/R50X	 (2.5mm pitch lengthwise) R20 only	 (5mm pitch parallel) R20 only

Taping \ Part No.		R20	R25X	R50X	R75X	F20	F25X	F50X	F75X
Axial	52mm wide	○	○	○	○	○	○	○	○
	26mm wide	○	○	○	–	○	○	○	–
Radial	For Avisert	○	○	○	–	–	–	–	–
	For Panasert	○	○	○	–	–	–	–	–

●Bulk (Forming)

FCR	ELR
	

Forming \ Part No.		R20	R25X	R50X	R75X	F20	F25X	F50X	F75X
FCR	5mm pitch	FC02	–	–	–	FC02	–	–	–
	10mm pitch	–	FC06	FC16	–	–	FC06	FC16	–
	12.5mm pitch	–	–	–	FC10	–	–	–	FC10
ELR		ELR	EL03	ELR	–	–	–	–	–

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Metal Film Resistors (CRB)

(Standard : JIS C 5724)

The same size as small carbon film resistors, but made of nickel chromium film, these resistors are reliable because the resistive element is formed by ROHM's unique vacuum metal deposition process, and is highly stable.

Part No.	Power rating (70℃)	Maximum working voltage (V)	Resistance tolerance	Temperature coefficient (PPM/℃)	Resistance range	Operating ambient temperature (℃)
CRB20	0.20W	250	F (±1%)	X (±100)	1Ω～1MΩ	−55～+165
				Y (± 50)	10Ω～1MΩ	
			D (±0.5%)	X (±100)	10Ω～1MΩ	
				Y (± 50)	10Ω～1MΩ	
CRB25	0.25W	300	F (±1%)	W (±200)	1Ω～1MΩ	−55～+165
				X (±100)	10Ω～1MΩ	
				Y (± 50)	10Ω～1MΩ	
				Z (± 25)	49.9Ω～330kΩ	
			D (±0.5%)	X (±100)	10Ω～1MΩ	
				Y (± 50)	49.9Ω～1MΩ	
				Z (± 25)	49.9Ω～330kΩ	
			C (±0.25%) B (±0.10%)	X (±100)	49.9Ω～1MΩ	
				Y (± 50)	49.9Ω～1MΩ	
				Z (± 25)	49.9Ω～330kΩ	
CRB50	0.50W	350	F (±1%)	W (±200)	1Ω～2.2MΩ	−55～+165
				X (±100)	10Ω～2.2MΩ	
				Y (± 50)	10Ω～1MΩ	
				Z (± 25)	49.9Ω～330kΩ	
			D (±0.5%)	X (±100)	49.9Ω～1MΩ	
				Y (± 50)	49.9Ω～680kΩ	
				Z (± 25)	49.9Ω～680kΩ	
			C (±0.25%) B (±0.10%)	X (±100)	49.9Ω～100kΩ	
				Y (± 50)	49.9Ω～100kΩ	
				Z (± 25)	49.9Ω～100kΩ	

Notes : 1.Standard resistance series : E96,D(±0.5%),C(±0.25%),B(±0.1%) : E192
2.The 250 and 500 are the same as the standard series.

●Product Designation

B	±0.10%
C	±0.25%
D	±0.5%
F	±1.0%

Resistance tolerance

Z	±25 ppm/℃
Y	±50 ppm/℃
X	±100 ppm/℃
W	±200 ppm/℃

Temperature coefficient

4-digit IEC coding system

Nominal resistance

Part No.

CRB 2 0 – T 2 9 E – D X – □ □ □ □

Packaging and forming specifications

T08E	CRB50	Taping	Axial	52mm wide	Ammo Box	1,000
T29E	CRB20／25					2,000
T24E	CRB20／25			26mm wide	Ammo Box	2,000
T42E	CRB20		Radial	5mm pitch parallel	Ammo Box	2,000
T41X	CRB20				Reel	2,500
T34E	CRB25			5mm pitch lengthwise	Ammo Box	2,000
T31X	CRB25				Reel	2,500
T35X	CRB20			2.5mm pitch parallel	Reel	2,500
R-65	CRB20／25／50	Bulk	Straight		Polyethylene bag	1,000
F02E	CRB20		Lead forming	FCR (lengthwise) 5mm pitch	Polyethylene bag	1,000
F06E	CRB25			FCR (lengthwise) 10mm pitch	Polyethylene bag	1,000
ELRE	CRB20			ELR (parallel)	Polyethylene bag	1,000
E03E	CRB25					1,000

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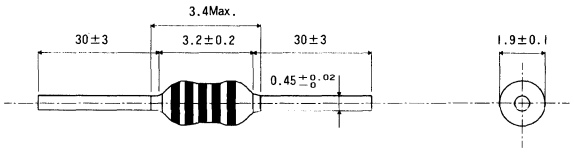
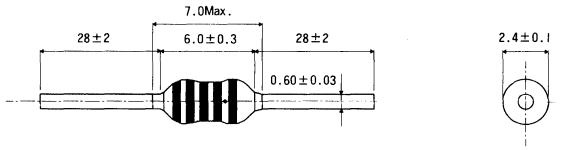
Dimensions list

(Unit : mm)

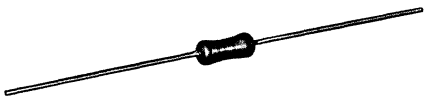
CRB20

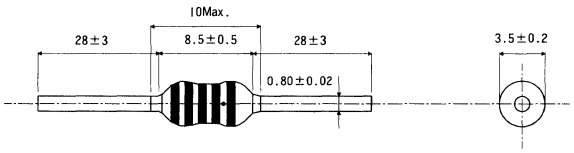


CRB25



CRB50





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Metal Film Resistors (CRB)

Packaging

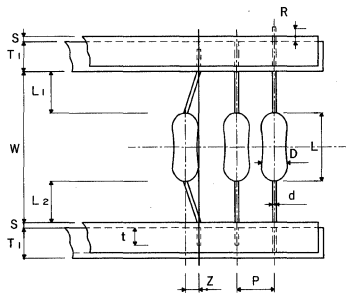
Part No.	packaging type		Code	Packaging style	Qunantity (pcs)
CRB20	Bulk		R-65・F02E・ELRE	Polyethylene bag	1000
	Axial	52mm wide	T29E	Ammo Box	2000
		26mm wide	T24E		2000
	Radial	5mm pitch parallel	T42E	Ammo Box	2000
			T41X	Reel	2500
CRB25	Bulk		R-65・F06E・E03E	Polyethylene bag	1000
	Axial	52mm wide	T29E	Ammo Box	2000
		26mm wide	T24E		2000
	Radial	5mm pitch lengthwise	T34E	Ammo Box	2000
			T31X	Reel	2500
CRB50	Bulk		R-65	Polyethylene bag	1000
	Axial	52mm wide	T08E	Ammo Box	1000

●Packaging Specifications

●Taping (Axial)

(Unit : mm)

CRB20 | **CRB25 CRB50**



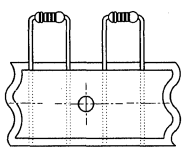
CRB20

		26mm	52mm
L	Length	See page355.	
D	Outer diameter		
d	Lead wire diameter		
$\|L_2-L_1\|$	Off-center	0.2Max.	0.5Max.
P	Pitch	5.0±0.3	5.08±0.38
R	Lead wire projection	0	
S	Tape shift	0.1Min.	
T_1	Base tape width	6.0±0.5	
W	Inner tape width	$26.0^{+0.2}_{-0}$	52.0±1.0
t	Lead wire connection length	4.0Min.	
Z	Lead wire curvature	1.0Max.	

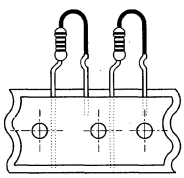
CRB25 CRB50

		26mm	52mm
L	Length	See page355.	
D	Outer diameter		
d	Lead wire diameter		
$\|L_2-L_1\|$	Off-center	1.0Max.	
P	Pitch	5.0±0.3	5.08±0.38
R	Lead wire projection	0	
S	Tape shift	0.1Min.	
T_1	Base tape width	6.0±0.5	
W	Inner tape width	$26.5^{+1.0}_{-0.5}$	$52.4^{+1.6}_{-1.4}$
t	Lead wire connection length	4.0Min.	
Z	Lead wire curvature	1.0Max.	

●Taping (Radial)



(5mm pitch, horizontal)
CRB20 only



(5mm pitch, vertical)
CRB25 only

Taping \ Part No.		CRB20	CRB25	CRB50
Axial	52mm wide	○	○	○
	26mm wide	○	○	–
Radial	For Avisert	○	○	–
	For Panasert	–	○	–

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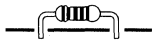
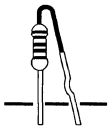
● Bulk (Forming)

FCR	ELR
	

Forming \ Part No.		CRB20	CRB25	CRB50
FCR	5mm	F02E	–	–
	10mm	–	F06E	–
ELR		ELRE	E03E	–

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Metal Oxide Film Resistors (CRH)

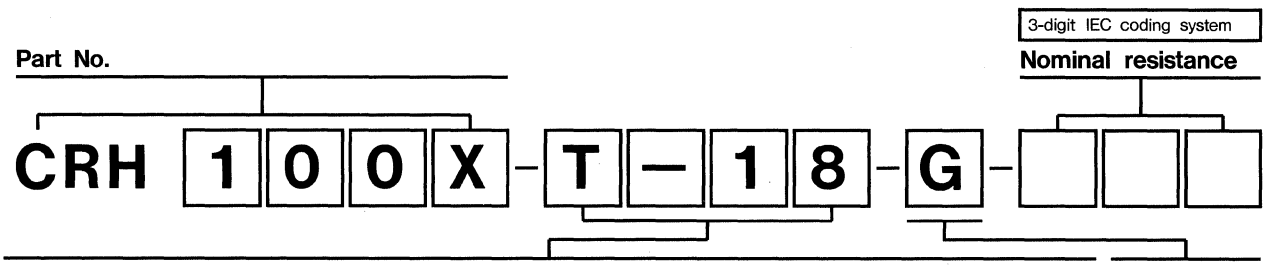
(Japanese standard : JIS C 6409)

CRH series fixed metal oxide film resistors are a modified version of conventional nickel chromuim metal film resistor, CRB series, which is very stable and reliable. CRH is manufactured using ROHM's unique sputtering process which reduces the body size but increases high-temperature properties. These characteristics help in designing cost-effective devices.

Part No.	Power rating (70°C)	Maximum working voltage (V)	Resistance tolerance	Resistance range	Operating ambient temperature (°C)
CRH50	0.50W	350	J (±5%)	0.22Ω ~ 68kΩ	−25~+200
			G (±2%)	10Ω ~ 68kΩ	
CRH100X	1.00W	350	J (±5%)	0.22Ω ~ 100kΩ	
			G (±2%)	10Ω ~ 100kΩ	
CRH100	1.00W	350	J (±5%)	0.22Ω ~ 100kΩ	
			G (±2%)	10Ω ~ 100kΩ	
CRH200	2.00W	350	J (±5%)	0.22Ω ~ 120kΩ	
			G (±2%)	10Ω ~ 120kΩ	
CRH300	3.00W	350	J (±5%)	0.33Ω ~ 120kΩ	
			G (±2%)	10Ω ~ 120kΩ	

Notes : 1.Applicable types;straight lead;independent,preformed;and 52mm−wide taped.
2.Resistors with tolerance grade F (±1%) and resistance temperature coefficient × (±100ppm/°C) are also available.

●Product Designation



Packaging and forming specifications

T-11	CRH200	Taping	Axial	52mm wide	Ammo Box	500
T-13	CRH200				Reel	1,000
T-08	CRH100				Ammo Box	1,000
T-29	CRH50					1,000
T-18	CRH100X					2,000
T-24	CRH50			26mm wide	Ammo Box	2,000
R-02	CRH300	Bulk	Straight		Polyethylene bag	250
R-02	CRH200					500
R-02	CRH50/100/100X					1,000
FC10	CRH100/100X		Lead forming	FCR (Parallel) 12.5mm pitch	Polyethylene bag	1,000
FC17	CRH50			FCR (Parallel) 15mm pitch	Polyethylene bag	1,000
FH01	CRH50			FH (Independent) 10mm pitch	Polyethylene bag	1,000
FH11	CRH100/100X			FH (Independent) 12.5mm pitch	Polyethylene bag	1,000
FH24	CRH200			FH (Independent) 15mm pitch	Polyethylene bag	500
FH34	CRH300			FH (Independent) 20mm pitch	Polyethylene bag	250

Resistance tolerance

G	±2%
J	±5%

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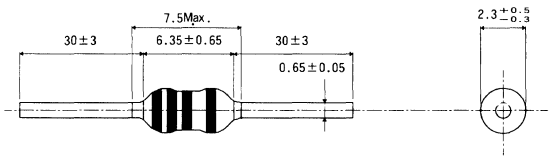
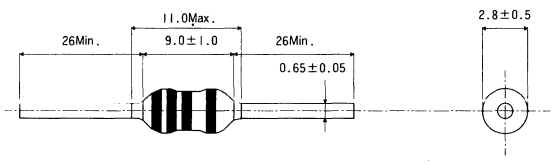
Dimensions list

(Unit : mm)

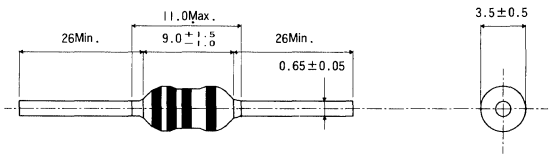
CRH50



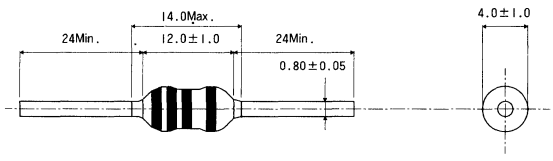
CRH100X



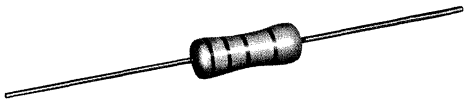
CRH100

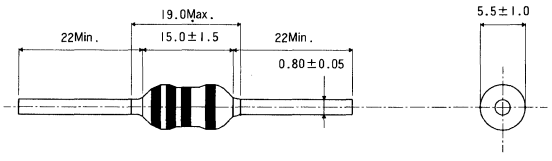


CRH200



CRH300





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Metal Oxide Film Resistors (CRH)

Packaging

Part No.	Packaging type		Code	Packaging style	Quantity (pcs)	Standard product・Semi-standard product
CRH50	Axial	52mm wide	T-29	Ammo box	2,000	○
		26mm wide	T-24		2,000	○
CRH100	Axial	52mm wide	T-08	Ammo box	1,000	○
CRH100X	Axial	52mm wide	T-18	Ammo box	2,000	○
CRH200	Axial	52mm wide	T-11	Ammo box	500	○
			T-13	Reel	1,000	○

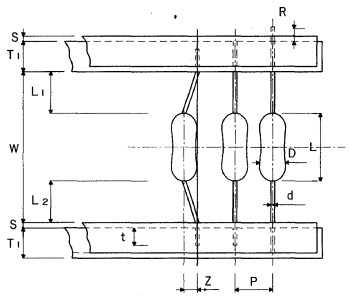
○ : Semi-standard product

●Packaging Specifications

●Taping (Axial)

(Unit : mm)

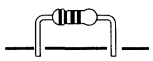
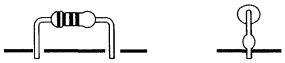
CRH50 CRH100 CRH100X CRH200



		26mm	52mm
L	Length	See page359	
D	Outer diameter		
d	Lead wire diameter		
$\|L_2-L_1\|$	Off-Center	1.0Max.	
P	Pitch	5.0±0.3	5.08±0.38
R	Lead wire projection	0	
S	Tape shift	0.1Min.	
T_1	Tape width	6.0±0.5	
W	Inner tape width	$26.5^{+1.0}_{-0.5}$	$52.4^{+1.6}_{-1.4}$
t	Lead wire connection length	4.0Min.	
Z	Lead wire curvature	1.0Max.	

Taping \ Part No.		CRH50	CRH100	CRH100X	CRH200	CRH300
Axial	52mm wide	○	○	○	○	–
	26mm wide	○	–	–	–	–

●Bulk (Forming)

FCR (Horizontal)	FH (Snap-in Type)
	

Forming \ Part No.		CRH50	CRH100	CRH100X	CRH200	CRH300
FCR	12.5	–	FC10	FC10	–	–
	15	FC17	–	–	–	–
FH (Snap-in Type)	10	FH01	–	–	–	–
	12.5	–	FH11	FH11	–	–
	15	–	–	–	FH24	–
	20	–	–	–	–	FH34

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Resistor Networks (RM・RY)

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A number of resistors are packed in a small package, for high density mounting.
The excellent characteristics of thick film resistor are fully made by our designers who have long experience in this field.
The result is a series of high performance, high reliable resistor network products.

●Resistor Networks

Type	Part No.	Type	Power rating (at 70℃／Element)	Temperature coefficient (ppm／℃)	Resistance tolerance	Resistance range	Package
Number of elements specified	**RM series**	RML	1／8W	X : ±100 General : ±200	F (±1%) G (±2%) J (±5%)	FX (GX) 510Ω～1MΩ J 22Ω～2.2MΩ	SIP 4～14pins
		RMN	1／6W				
		RMH	1／4W				
Number of elements specified	**RY series**	RYL	0.075W	±300	J (±5%)	33Ω～1MΩ	SIP 4～16pins

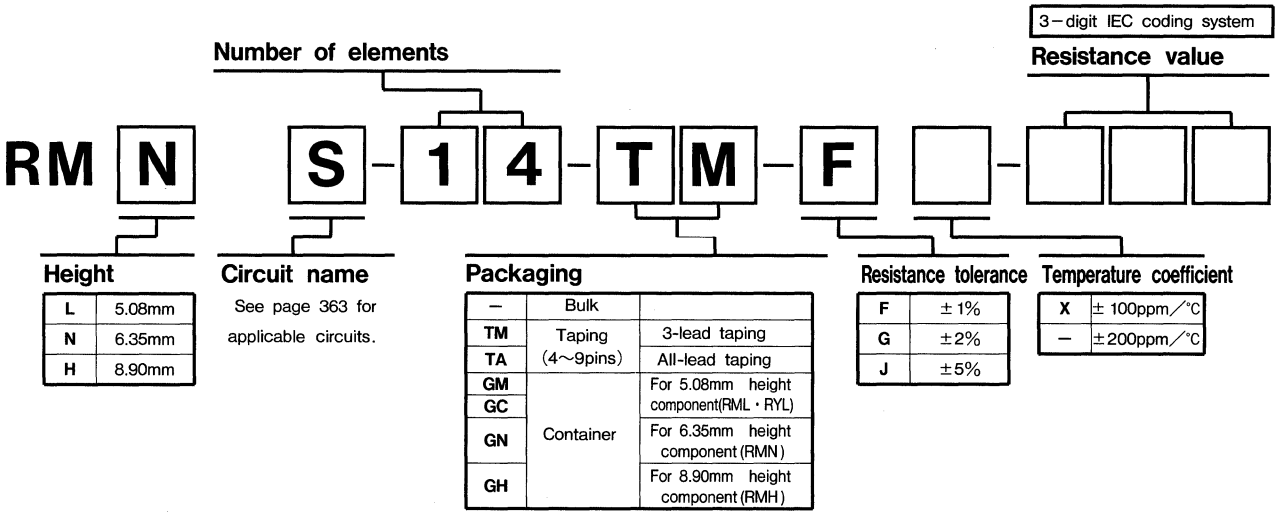
●Ladder Networks

Part No.	Bits	Circuit	Resistance	Linearity	Tolerance	Temp. coefficient
RKM5LW××××	4bit weighting	R／2R／4R／8R	1kΩ～15kΩ	±1/2LSB(±3.12%)	J (±5%) G (±2%) F (±1%)	Absolute ±200ppm/℃ Tracking ±50ppm/℃
RKM6LW××××	5bit weighting	R／2R／4R／8R／16R		±1/2LSB(±1.56%)		
RKM7LW××××	6bit weighting	R／2R／4R／8R／16R／32R		±1/2LSB(±0.78%)		
RKM8LW××××	7bit weighting	R／2R／4R／8R／16R／32R／64R		±1/2LSB(±0.39%)		
RKM6L××××	R／2R 4bit	R／2R	750Ω～120kΩ	±1/2LSB(±3.12%)	J (±5%) G (±2%) F (±1%)	Absolute ±200ppm/℃ Tracking ±50ppm/℃
RKM7L××××	R／2R 5bit	R／2R		±1/2LSB(±1.56%)		
RKM8L××××	R／2R 6bit	R／2R		±1/2LSB(±0.78%)		
RKM9L××××	R／2R 7bit	R／2R		±1/2LSB(±0.39%)		
RKM10L××××	R／2R 8bit	R／2R		±1/2LSB(±0.20%)		

Note : 1.No.of pins, instead of elements.

●Product Designation

●RM, RY series (Number of elements specified)



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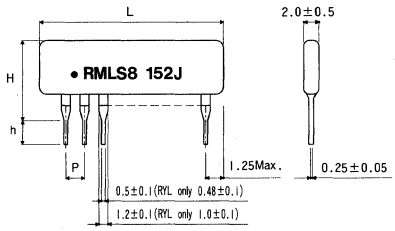
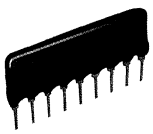
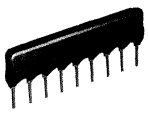
Resistor Networks (RM · RY)

Dimensions list

(Unit : mm)

Type	Outward (example)	Dimensions (mm)	H Max.	P	L Max.	h
RML			5.08	2.54±0.1	2.54×(number of pins−1)+2.5	$3.2^{+0.6}_{-0}$
RMN			6.35			
RMH			8.90			
RYL			5.08	1.778±0.1	1.778×(number of pins−1)+2.5	
RKM			6.35	2.54±0.1	2.54×(number of pins−1)+2.5	

Notes : 1.Standard devices have 4 to 14 lead terminals.
2.Up to 18 terminals are available.
3.RML and RYL available in 3 pin configuration.

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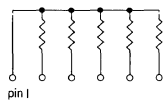
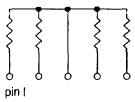
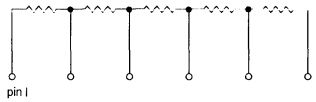
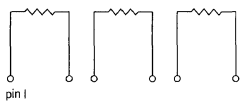
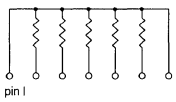
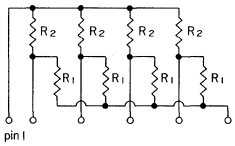
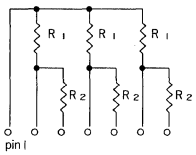
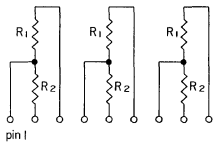
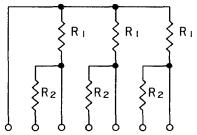
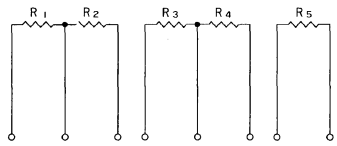
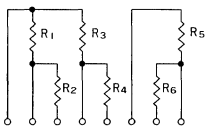
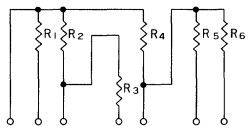
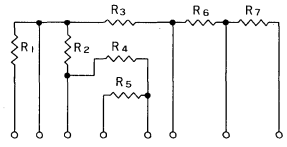
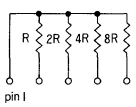
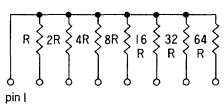
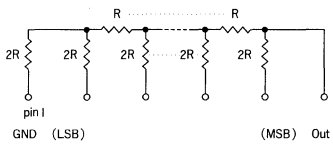
●Applicable Circuits

Part No. \ Circuit		Stnadard S Circuit	C Circuit (RM Series) W Circuit (RK Series)	Series H Circuit	Parallel A Circuit	Both end common D Circuit	Terminal T Circuit	Divider B Circuit	Divider E Circuit	Divider G Circuit	Custom
RM	RML	○	○	○	○	○					△
	RMN	○	○	○	○	○	△	○	○	△	△
	RMH	○	○	○	○	○	○	○	○	○	△
RY	RYL	○			○						

Side common(standard)	Center common	Series
Circuit S	Circuit C (RM Series) Circuit W (RK Series)	Circuit H
		
Parallel	**Both end common**	**Terminator**
Circuit A	Circuit D	Circuit T (RM Series) Circuit B (RK Series)
		
Divider		
Circuit B (RM Series) Circuit F (RK Series)	Circuit E	Circuit G
		
Custom(example)		
			

●Ladder Networks(RKM Type)

Applicable circuits		
4-bit weighting(LW)	7-bit weighting(LW)	R/2R n-bit(L)
		

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Resistor Networks (RM · RY)

Packaging

Part No.		Packaging type	Code	Packaging style	Quantity/Package (Pcs)	Quantity/Unit (pcs)
RM Series		Bulk	–	Polyethylene bag	200,400 500,1000	100 (50)
RML	4~9Pins	3-lead taping	TM	Ammo Box	1,000	–
		All-lead taping	TA			
		Container	GM	Container tube	100 container tubes	13~60
			GC			
RMN/RKM	4~9Pins	3-lead taping	TM	Ammo Box	1,000	–
		All-lead taping	TA			
		Container	GN	Container tube	100 container tubes	13~60
RMH		Container	GH	Container tube	100 container tubes	13~60
RYL		Bulk	–	Polyethylene bag	500,1000	100
		Container	GM	Container tube	100 container tubes	13~60
			GC			

●The Class and Basic Ordering Units for Standard and Semi-standard Products

RM Type / Circuit Symbol / Basic order unit (pcs.)	S	C	H	A	D	B	G	E	T	Remarks
	200,400,500 or 1000									
RML	◎	◎	◎	◎	◎					◎,○and△are further classified by the resistance value used.
RMN	◎	○	○	◎	○	○	○	○	○	
RMH	◎	○	○	◎	○	○	○	○	○	

RY Type / Circuit Symbol / Basic ordering unit (pcs.)	S	A	Remarks
	500 or 1000		
RYL	◎	○	by the resistance value used.

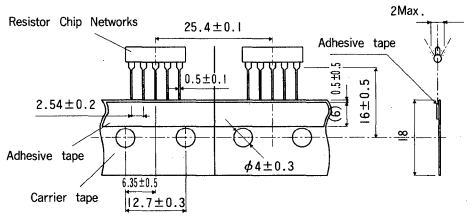
◎ : Standard product ○ : Semi-standard product

●Packaging Specifications

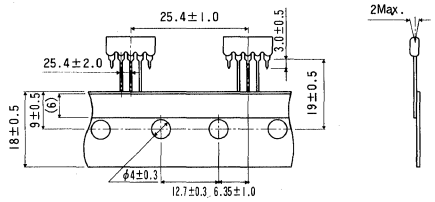
●Taping

(Unit : mm)

TA

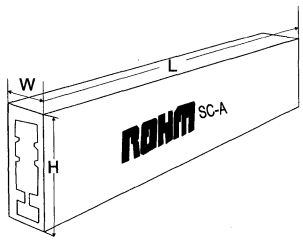


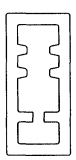
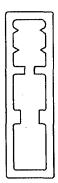
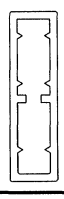
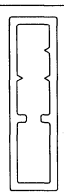
TM



●Container

(Unit : mm)



Item \ Specifications	GM	GC	GN	GH
H	11.0±0.2	13.2±0.2	13.4±0.2	14.5±0.2
W	5.0±0.15	3.8±0.15	3.8±0.15	3.8±0.15
L	$508^{+0}_{-1.5}$	$508^{+0}_{-1.5}$	$508^{+0}_{-1.5}$	580±0.5
Height	For 5.08mm height		For 6.35mm height	For 8.90mm height
Cross section				

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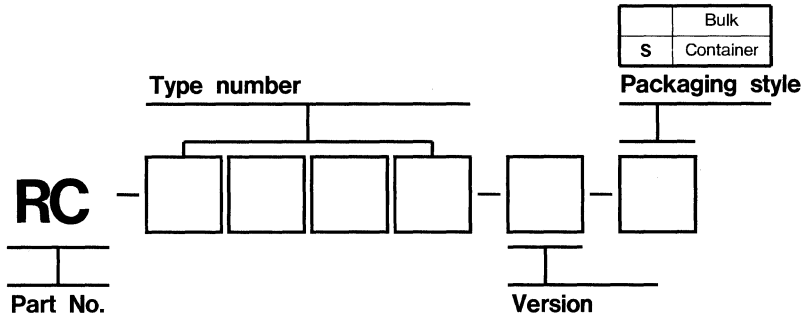
RC Networks (RC)

Several resistors and capacitors are packed into a single package, enabling high density mounting of resistors and capacitors. The number of reliable thick film resistors and chip capacitors in a package can be specified in the order sheet, to meet RC requirements of the specific circuit design and to eliminate unnecessary components and assemble processes. Can be used as an interface to TTL, C-MOS, etc., or as integrated components on industrial equipment and vehicle devices and other applications.

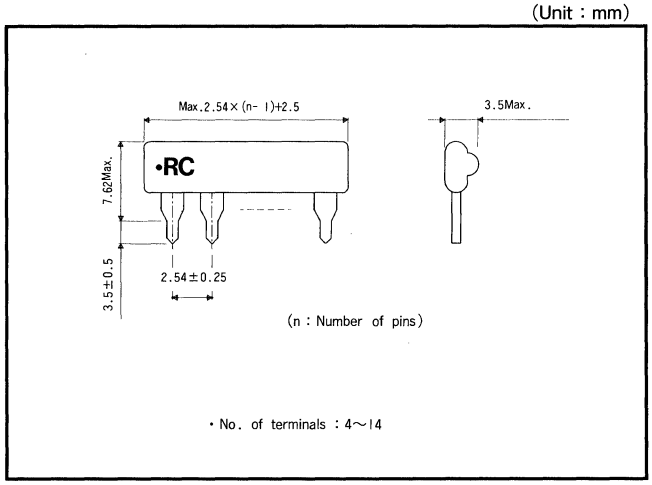
Part No.	Power rating	Temperature coefficient (ppm/℃)	Resistance tolerance	Resistnace range	Capacitance range	Package	Operating ambient temperature (℃)
RC	1/8W	±300	J (±5%) G (±2%)	47Ω~470kΩ	200pF~0.047μF (CK)	SIP4~14pin	−25~+85

Note : 1.This type is available in tube packing.

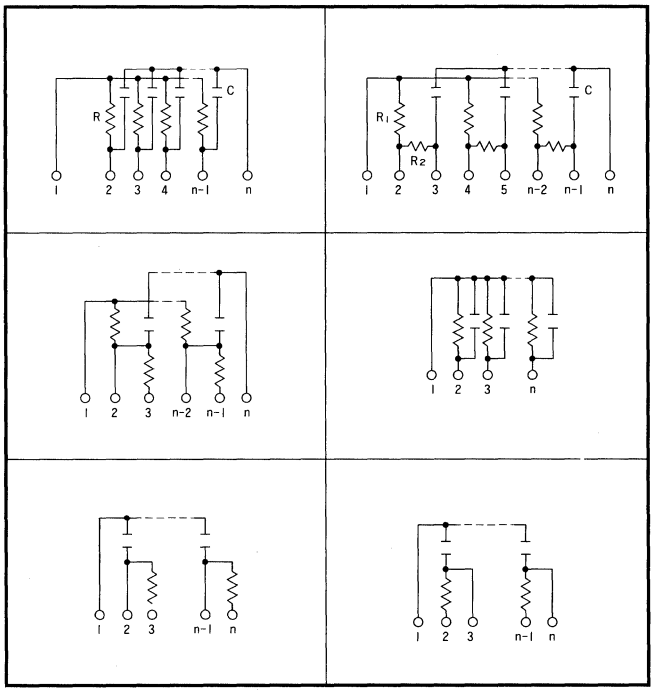
●Product Designation



(Unit : mm)



●Applicable Circuits



Note : 1. The following are typical circuits. Other circuits are available on request.

●Packaging

Part No.	Packaging type	Packaging style	Code	Quantity/Package (pcs)	Quantity/Unit (pcs)
RC Series	Bulk	Polyethylene bag	−	200,400 500,1000	100
	Container	Container	S	100 container tube	13~60

●The Class and Basic Ordering Units for Standard and Semi-Standard Products

RC Type	Basic Ordering Unit (pcs.)	5000	Remarks
RC		△	Only custom made products

△:Special specifications

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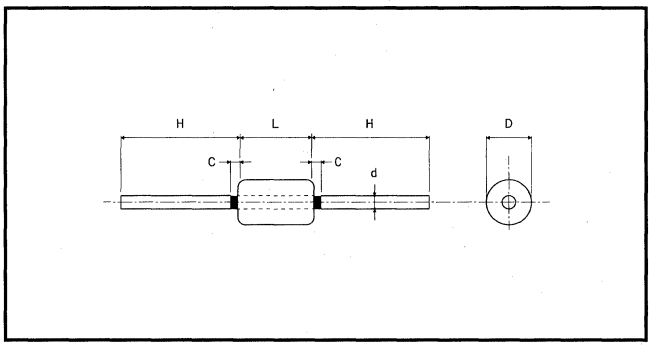
Jumper Wires JPW01 and JPW02

Resistance : 10mΩ or less; max.current : 2A; Isolation voltage 1000V; useful for cross-pattern jumper and cross-part jumper.



(unit : mm)

Item	Part No.	JPW01	JPW02
Outer diameter	D	1.80±0.10	2.30±0.15
Length	L	3.2±0.2	5.7±0.2
Lead diameter	d	0.45 $^{+0.02}_{-0}$	0.55±0.02
Lead length	H	28±3	28±3
Adhesive flow length	C	0.3Max.	0.5Max.

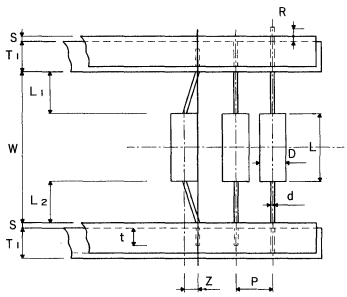
●Packaging

Part No.	Packaging type		Code	Packaging style	Qunantity (pcs)
JPW01	Bulk		R-01	Polyethylene bag	1000
	Axial	52mm wide	T-29	Ammo box	2000
		26mm wide	T-24		2000
JPW02	Bulk		R-01	Polyethylene bag	1000
	Axial	52mm wide	T-29	Ammo box	2000
		26mm wide	T24W		2000
	Radial taping	5mm pitch, vertical	T34V		2000

●Packaging Specifications

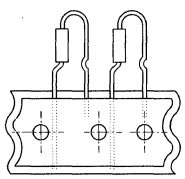
●Taping (Axial)

JPW01、JPW02



		26mm	52mm
L	Length	See figure left	
D	Outer diameter		
d	Lead wire diameter		
$\|L_2-L_1\|$	Off-Center	1.0Max.	
P	Pitch	5.0±0.3	5.08±0.38
R	Lead wire projection	0	
S	Tape shift	0.1Min.	
T_1	Tape width	6.0±0.5	
W	Inner tape width	26.5 $^{+1.0}_{-0.5}$	52.4 $^{+1.6}_{-1.4}$
t	Lead wire connection length	4.0Min.	
Z	Lead wire curvature	1.0Max.	

●Taping (Radial)



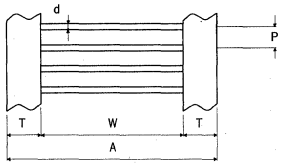
(5mmpitch, vertical)

JPW02

Taping	Part No.	JPW01	JPW02
Axial	52mm wide	○	○
	26mm wide	○	○
Radial	For Avisert	○	○
	For Panasert	–	○

Lead Wries for Taping : LW T-29 (Electical annealed copper wire)

Resistance 10mΩ or less;suitable for automatic placement.



(Unit : mm)

Item	Part No.	LW T-29
Outer tape width	A	64.5±0.5
Inner tape width	W	52.4 $^{+1.6}_{-1.4}$
Pitch	P	5.08±0.38
Tape width	T	6.0±0.5
Lead diameter	d	0.60±0.02