

Metal Film Resistors (CRB)

(JIS Standard : JIS C 5724)

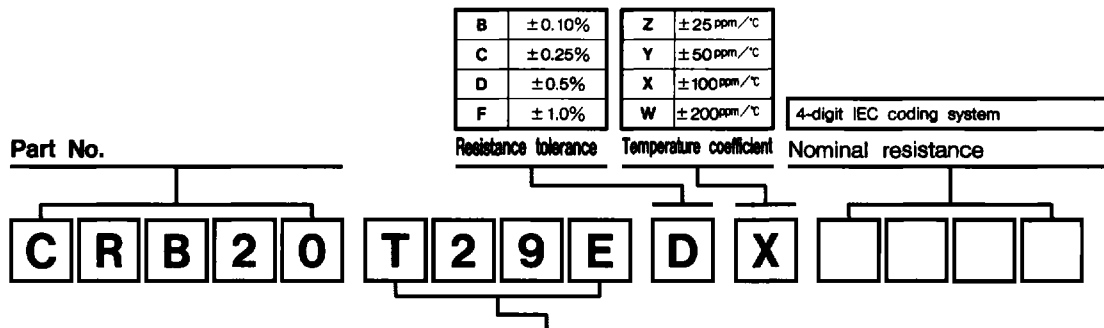
The same size as small carbon film resistors, but made of nickel chromium film, these resistors are reliable because the resistive element is formed by ROHM's unique vacuum metal deposition process, and is highly stable.

Part No.	Power rating (70°C)	Maximum working voltage (V)	Resistance tolerance	Temperature coefficient (PPM/°C)	Resistance range	Operating ambient temperature (°C)	
CRB20	0.20W	250	F (±1%)	X (±100) Y (±50)	1Ω~1MΩ 10Ω~1MΩ	-55~+165	
			D (±0.5%)	X (±100) Y (±50)	10Ω~1MΩ 10Ω~1MΩ		
CRB25	0.25W	300	F (±1%)	W (±200)	1Ω~1MΩ	-55~+165	
				X (±100) Y (±50) Z (±25)	10Ω~1MΩ 10Ω~1MΩ 49.9Ω~330kΩ		
			D (±0.5%)	X (±100) Y (±50) Z (±25)	10Ω~1MΩ 49.9Ω~1MΩ 49.9Ω~330kΩ		
				C (±0.25%) B (±0.10%)	X (±100) Y (±50) Z (±25)		49.9Ω~1MΩ 49.9Ω~1MΩ 49.9Ω~330kΩ
CRB50	0.50W	350	F (±1%)	W (±200)	1Ω~2.2MΩ	-55~+165	
				X (±100) Y (±50) Z (±25)	10Ω~2.2MΩ 10Ω~1MΩ 49.9Ω~330kΩ		
				D (±0.5%)	X (±100) Y (±50) Z (±25)		49.9Ω~1MΩ 49.9Ω~680kΩ 49.9Ω~680kΩ
			C (±0.25%) B (±0.10%)		X (±100) Y (±50)		49.9Ω~100kΩ 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.
 3.Fire retardant (Conform to ULV-O).
 4.High resistance resistors must be used under well designed operating conditions (load factor,voltage).

●Product Designation

- When ordering, specify the type.
- Check each code against the code tables shown below.
- Fill a space with the next character.



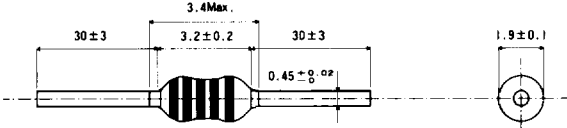
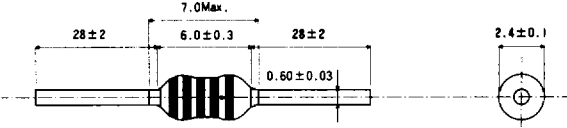

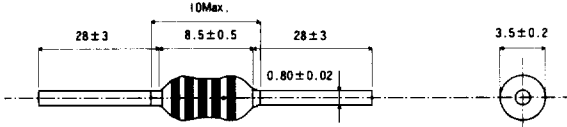


Packaging and forming specifications

Part No.	Power rating	Forming	Width	Pitch	Quantity	
T08E	CRB50	Axial	52mm wide	Ammo Box	1,000	
T20E	CRB20/25		26mm wide	Ammo Box	2,000	
T24E	CRB20/25	Radial	5mm pitch parallel	Ammo Box	2,000	
T42E	CRB20			Reel	2,500	
T41X	CRB20		5mm pitch lengthwise	Ammo Box	2,000	
T34E	CRB25			Reel	2,500	
T31X	CRB25	2.5mm pitch parallel	Reel	2,500		
T35X	CRB20		Reel	2,500		
R-65	CRB20/25/50	Straight		Polyethylene bag	1,000	
F02E	CRB20	Lead forming	FCR (lengthwise)	5mm pitch	Polyethylene bag	1,000
F06E	CRB25			10mm pitch	Polyethylene bag	1,000
ELRE	CRB20		BLR (parallel)		Polyethylene bag	1,000
E03E	CRB25			Polyethylene bag	1,000	

●Dimensions list

(Unit : mm)

CRB20	CRB25
	
	
CRB50	
	
	

Metal Film Resistors (CRB)

●Packaging

Part No.	packaging type	Code	Packaging style	Quantity (pcs)	
CRB20	Bulk	R-65 · F02E · ELFE	Polyethylene bag	1000	
	Axial	52mm wide	T29E	2000	
		26mm wide	T24E	2000	
	Radial	5mm pitch parallel	T42E	2000	
		T41X	Reel	2500	
CRB25	Bulk	R-65 · F08E · E03E	Polyethylene bag	1000	
	Axial	52mm wide	T29E	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		CRB25 CRB50	
		26mm	52mm
L	Length	See Dimensions list	
D	Outer diameter	See Dimensions list	
d	Lead wire diameter	See Dimensions list	
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.	
		26mm	52mm
L	Length	See Dimensions list	
D	Outer diameter	See Dimensions list	
d	Lead wire diameter	See Dimensions list	
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 ^{+1.8} / _{-1.4}
t	Lead wire connection length	4.0Min.	
Z	Lead wire curvature	1.0Max.	

●Taping (Radial)

(Unit : mm)

5.0mm pitch axial (CRB20 only)

	ϕD	L	H	ϕd	P	P ₀	P ₁	P ₂
CRB20 T42E	1.9±0.1	3.4Max.	20.5 ^{+1.0} ₋₀	0.45 ^{+0.02} ₋₀	12.7±0.3	12.7±0.3	3.85±0.7	6.35±1.0
	F	W	W ₀	W ₁	W ₂	accumulated pitch error (20 pitch)		Δh
	5.0±0.5	18.0 ^{+1.0} _{-0.5}	12.5Min.	9.0 ^{+0.75} _{-0.5}	3.0Max.	1.0Max.	0±1	
	ϕD_0	t	H ₁					
	4.0±0.3	0.7±0.2	11.0Max.					

5.0mm pitch radial (CRB25)

	ϕD	L	H	d	P	P ₀	P ₁			
CRB25 T34E	2.4±0.1	6.0±0.5	12.0Max.	0.6±0.03	12.7±1.0	12.7±0.3	3.85±0.7			
	P ₂	F	F ₀	Δg	W	W ₀	W ₁	W ₂	H ₀	
	8.35±1.0	5.0±1.0	2.5±0.5	0±5'	18.0 ^{+1.0} _{-0.5}	11.5Min.	9.0±0.5	3.0Max.	16.0±0.5	
	l	D ₀	t	H ₁	accumulated pitch error (20 pitch)		Δh			
	1.0Max.	4.0±0.2	0.7±0.2	11.0Max.	1.0Max.	0±2'				
K	K ₁	K ₂	K ₃	K ₄	K ₅					
	4.0Max.	2.0±0.5	3.0±1.0	1.5±0.5	1.0±0.3	1.0±0.3				

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

●Bulk (Forming)

Axial forming (FCR)

	P ₁	P ₂	H	H ₁	S
CRB20 F02E	5.0±0.5	5.0 ^{+1.0} _{-0.5}	14.5 ^{+1.5} _{-1.0}	15.5±0.5	0.5Max.
CRB25 F06E	10.0±0.5	10.0 ^{+1.0} _{-0.5}	14.8±1.0	16.0±1.0	0.3Max.

Radial forming (ELR)

	H	H ₁	H ₂	d ₁	g	P
CRB20 ELRE	8.0Max.	15.0Min.	11.0±2.0	Approx. 1.0	1.0 ^{+1.0} _{-0.5}	2.5 reference

	H	H ₁	H ₂	d ₁	F	t	K	P
CRB25 E03E	8.0±1.0	15.0±2.0	11.0±2.0	Approx. 0.65	2.5±0.5	2.0±0.5	1.5±0.5	5.0 reference

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