



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

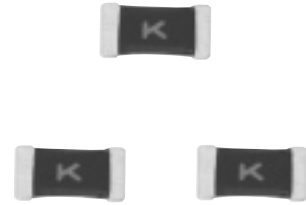
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



NEW

Circuit Protector (Micro Chip Fuse)

Type: **ERB**



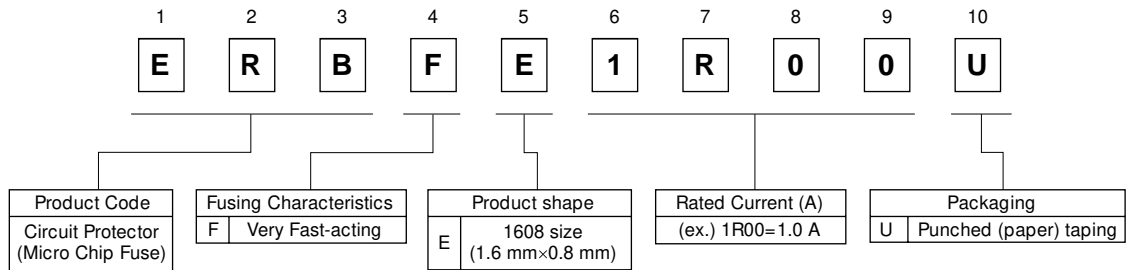
■ Features

- Small size (1608)
- Sharp fusing characteristics
- Pb free

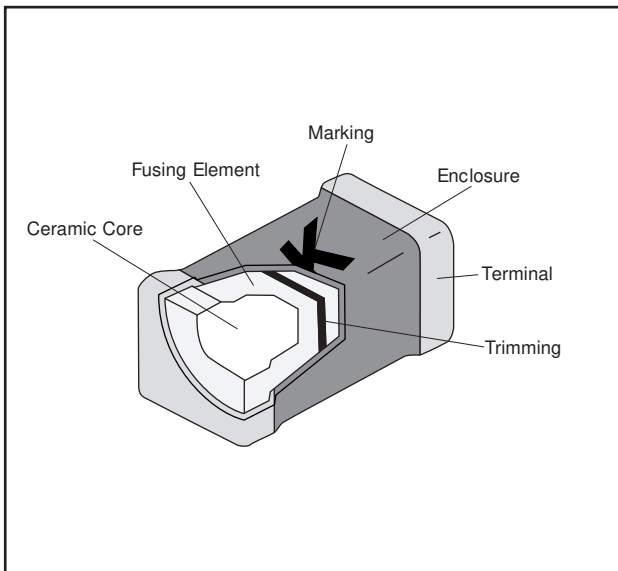
■ Approved Safety Standards

- UL248-14 : File No.E194052
- c-UL(CSA)C22.2 No.248-14 : File No. E194052

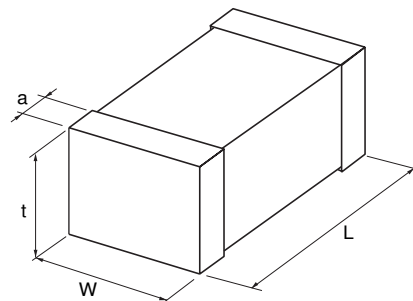
■ Explanation of Part Numbers



■ Construction



■ Dimensions in mm (not to scale)



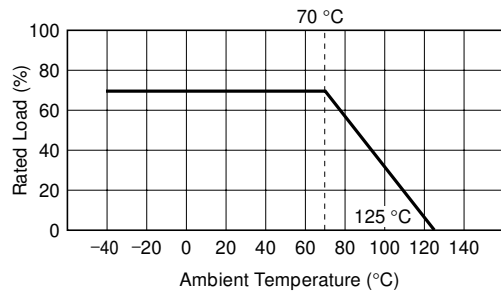
Type	Dimensions (mm)			
	L	W	a	t
ERBFE	1.60 ^{+0.15}	0.80 ^{+0.15}	0.30 ^{+0.20}	0.70 ^{+0.15} _{-0.10}

■ Ratings

Part No.	ERBFE□R□□U									
	0R50	0R75	1R00	1R25	1R50	2R00	2R50	3R00	4R00	5R00
Rated Current (A)	0.5	0.75	1.0	1.25	1.5	2.0	2.5	3.0	4.0	5.0
Marking Code	F	G	H	J	K	N	O	P	S	T
Internal R (mΩ) at 25 °C max.	330	185	120	90	70	50	38	31	22	17
Fusing Current/Fusing Time (at 25 °C)	Rated Current × 100 % / 4 hours min.									
	Rated Current × 200 % / 1 second max.									
	Rated Current × 300 % / 0.2 seconds max.									
Rated Voltage (Open Circuit Voltage)	32 VDC							24 VDC		
Interrupting Rating (at Rated voltage)	50 A									
Category Temp. Range (Operating Temp. Range)	-40 °C to 125 °C									

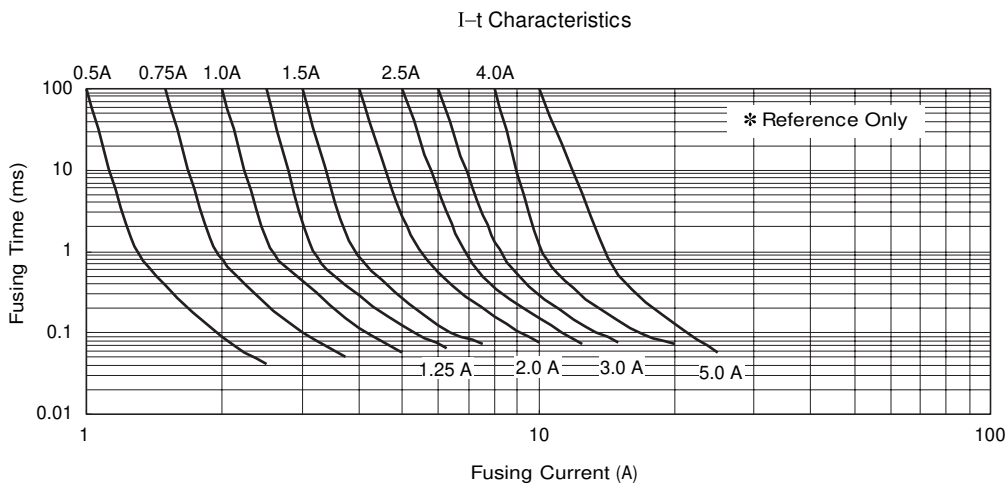
Power Derating Curve

- Current rating shall be derated in accordance with the figure on the right.
- This current derating curve is for fusing characteristics.



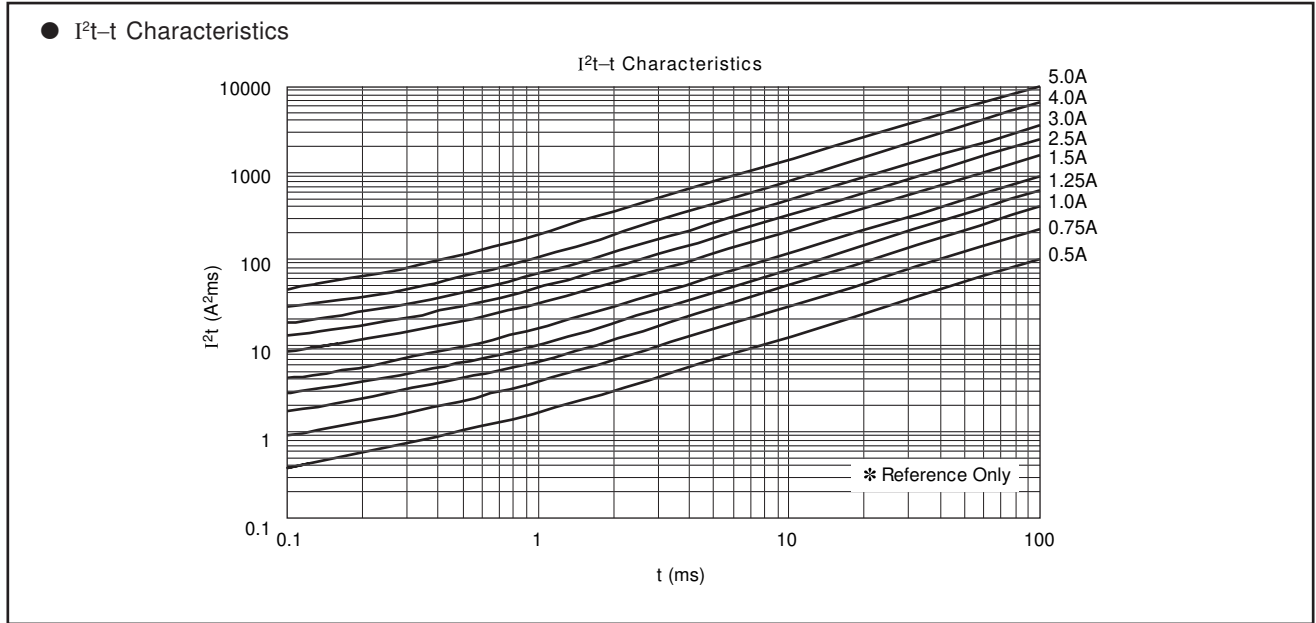
■ Fusing Characteristics (25 °C typical)

● I-t Characteristics



NEW

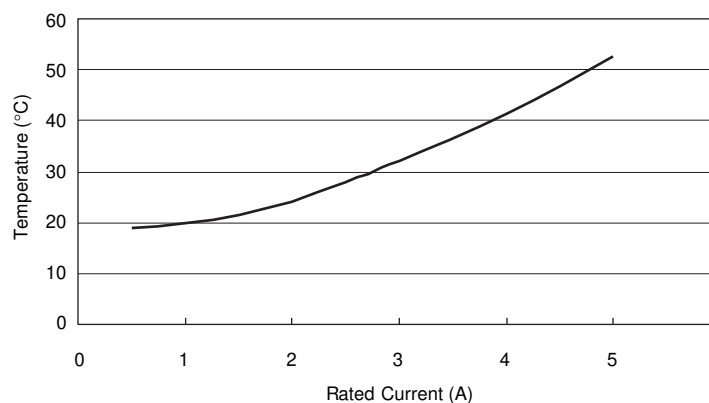
■ Fusing Characteristics (25 °C typical)



■ Performance Specifications

Characteristics	Limits	Test Methods
Resistance to Soldering Heat		260 °C × 10 sec
Temperature Cycling		-40 °C to 125 °C/30 min./5 cycles
Vibration Low Frequency	ΔR : within ±10 % No evidence of mechanical damage	Frequency range: 10 Hz→55Hz→10Hz/1 min. Amplitude 1.5 mm
Load Life		1000 hours (1.5 h ON, 0.5 OFF) Rated Power × 70 %, at 70 °C
Humidity		60 °C, 95 %RH, 1000 hours
Solderability	90 % coverage min.	235 °C × 5 sec
Resistance to Solvent	No evidence of protective coatings	IPA 10 min.

■ Hot Spot Temperature (Reference)

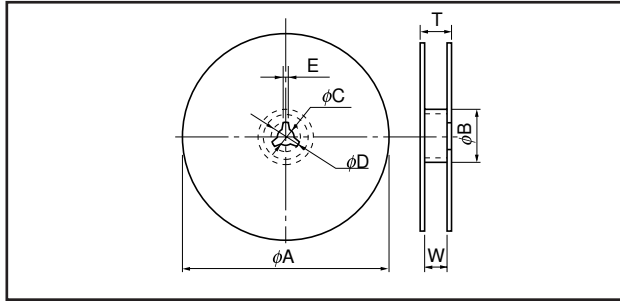


■ Packaging Specifications

● Standard Quantity

Type	Thickness (mm)	Punched (Paper) Taping
ERBFE	0.7	5000 pcs./ Reel

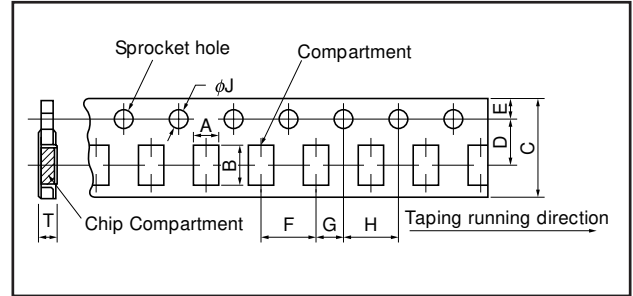
● Taping Reel



Dimensions (mm)	ϕA	ϕB	ϕC	ϕD	E
	178 ⁻²	50 min.	13.0 ^{+0.5}	21.0 ^{+0.5}	2.0 ^{+0.5}

Dimensions (mm)	W	T
	9.0 ^{+1.0}	11.4 ^{+2.0}

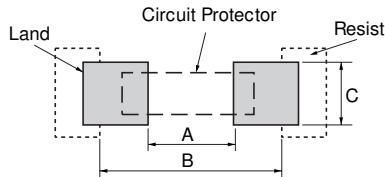
● Paper Taping



Dimensions (mm)	A	B	C	D	E
	1.00 ^{+0.10}	1.80 ^{+0.20}	8.00 ^{+0.20}	3.50 ^{+0.05}	1.75 ^{+0.10}

Dimensions (mm)	F	G	H	ϕJ	T
	4.00 ^{+0.10}	2.00 ^{+0.05}	4.00 ^{+0.10}	1.50 ^{+0.10}	0.85 ^{+0.07}

■ Recommend Land Pattern

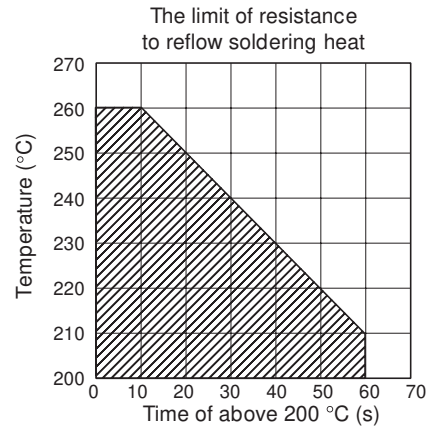
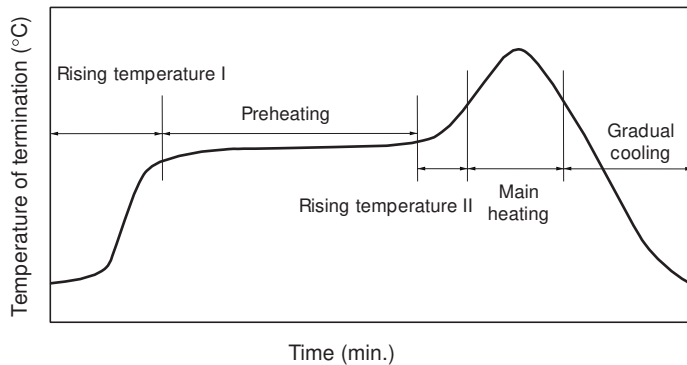


Type	Dimensions (mm)		
	A	B	C
ERBFE	0.8 to 1.0	2.1 to 2.3	0.7 to 0.9

■ Soldering Conditions

Precautions and recommendations are described below.

- Please contact us for additional information when using in conditions other than those specified.
 - Please measure the temperature of the terminations and confirm solderability of every type of printed circuit board, before actual use.
- <Recommended reflow soldering temperature>



Solder	Rising temperature I	Preheating	Rising temperature II	Main heating	Gradual cooling
For solder (Sn-37Pb)	The normal temperature to Preheating 30 s to 60 s	140 °C to 160 °C 60 s to 120 s	Preheating to 200 °C 20 s to 40 s	235±10 °C Peak	200 °C to 100 °C 1 °C to 4 °C/s
For lead-free solder (Sn-3Ag-0.5Cu)	The normal temperature to Preheating 30 s to 60 s	150 °C to 170 °C 60 s to 120 s	Preheating to 210 °C 20 s to 40 s	250 ⁺¹⁰ ₋₅ °C Peak	210 °C to 100 °C 1 °C to 4 °C/s

* Reflow soldering shall be a maximum of two times

<Repair with hand soldering>

- Allow enough preheating with a blast of hot air or similar method. Use a soldering iron with tip temperature 350 °C or less. Solder for 3 seconds or less for each termination.
- Never touch this product with the tip of a soldering iron.