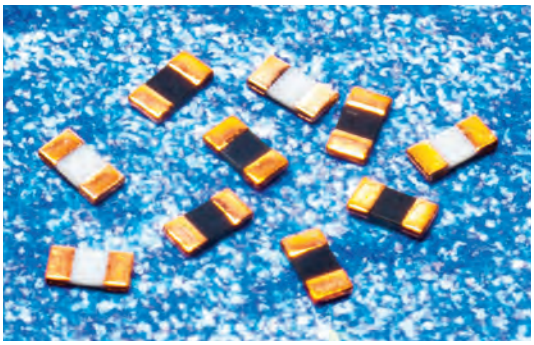
End of Life- Last time to buy: 3/31/2025

XR73B,XR73H,XR73Z

flat thick film resistors (for embedded substrates)

KOA SPEER ELECTRONICS, INC.

EU RoHS COMPLIANT

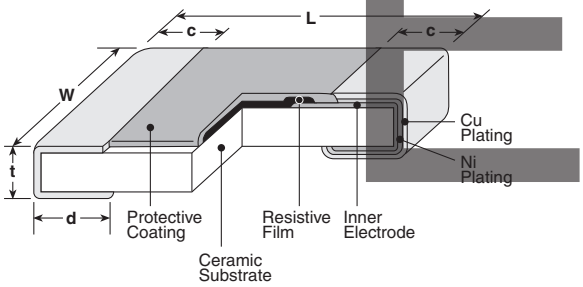


features

- Interlayer embedding in the multilayer substrate is applicable from the height of 0.13 to 0.14mm
- Cu via hole connection is applicable by the Cu electrode

EOL

dimensions and construction



Type (Inch Size Code)	Dimensions inches (mm) L	W	c	d	t
1H (0201)	.024±.001 (0.6±0.03)	.012±.001 (0.3±0.03)	.009±.001 (0.23±0.03)	.009±.001 (0.23±0.03)	.005±.001 (0.13±0.02)
1E (0402)	.039±.002 (1.0±0.05)	.020±.002 (0.5±0.05)	.011±.002 (0.28±0.05)	.011±.002 (0.28±0.05)	.006±.001 (0.14±0.03)

ordering information

XR73H	1E	U	TWL	1001	F
Type	**Power Rating**	**Termination Material**	**Packaging**	**Nominal Resistance**	**Resistance Tolerance**
XR73B XR73H	1H, 1E: 0.063W	U: CU	TWL: 2mm pitch plastic embossed TWA: 1mm pitch plastic embossed (1H only) For further information on packaging, please refer to Appendix A	±1%: 3 significant figures + 1 multiplier "R" indicates decimal on value <100Ω ±5%: 2 significant figures + 1 multiplier "R" indicates decimal on value <10Ω	F: ±1% J: ±5%

XR73Z	1E	U	TWL
Type	**Power Rating**	**Termination Material**	**Packaging**
XR73Z	1H, 1E: 1A	U: CU	TWL: 2mm pitch plastic embossed TWA: 1mm pitch plastic embossed (1H only) For further information on packaging, please refer to Appendix A

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applications and ratings

XR73B, XR73H

Part Designation	Power Rating*	Rated Ambient Temp.	T.C.R. ($x10^{-6}$/K) Max.	Resistance Range XR73H F: ±1% E24, E96	Resistance Range XR73B J: ±5% E24	Absolute Maximum Working Voltage	Absolute Maximum Overload Voltage	Operating Temp. Range
1H	0.063W	70°C	±200	10Ω~1MΩ	10Ω~10MΩ	50V	100V	-55°C to +155°C
			±400	1.0Ω~9.1Ω**	1.0Ω~9.1Ω			
1E	0.063W	70°C	±100	10Ω~1MΩ	—	50V	100V	-55°C to +155°C
			±200	1.0Ω~9.76Ω 1.02MΩ~10MΩ	1.0Ω~10MΩ			

Rated voltage = $\sqrt{\text{Power rating x resistance value}}$ or max. working voltage, whichever is lower

* The ratings will be for the surface mounted condition ** The nominal resistance value for XR73H1H (1Ω≦R≦9.1Ω) is E24

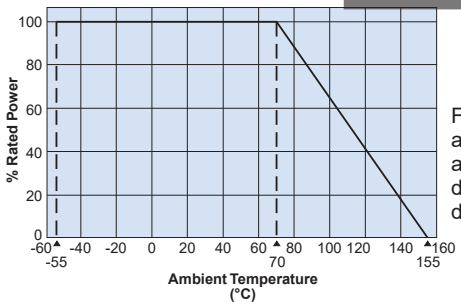
XR73Z

Part Designation	Resistance	Current Rating*	Rated Ambient Temp.	Maximum Overload Current	Operating Temp. Range
1H	50mΩ max.	1A	70°C	2A	-55°C to +155°C
1E	50mΩ max.	1A	70°C	2A	-55°C to +155°C

* The ratings will be for the surface mounted condition

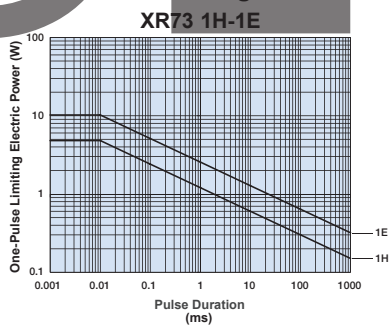
environmental applications

Derating Curve



For resistors operated at an ambient temperature of 70°C or above, a power rating shall be derated in accordance with the derating curve.

One-Pulse Limiting Electric Power



The maximum applicable voltage is equal to the max. overload voltage.

Please ask us about the resistance characteristic of continuous applied pulse.

The pulse endurance values are not assured values,so be sure to check the products on actual equipment when you use them.

Performance Characteristics

Parameter	XR73H, XR73B Requirement Δ R ±(%+0.05Ω) Limit	XR73H, XR73B Requirement Δ R ±(%+0.05Ω) Typical	XR73Z Requirement Limit	XR73Z Requirement Typical	Test Method
Resistance	Within specified tolerance	—	50mΩ max. after the test	15mΩ max. after the test	25°C
T.C.R.	Within specified T.C.R.	—	—	—	+25°C/-55°C and +25°C/+125°C
Overload (Short time)	±2%	±0.5%	50mΩ max. after the test	1E: R≦20mΩ 1H: R≦40mΩ	Rated Voltage x 2.5 for 5 seconds 1H: Rated voltage (DC) x 2 for 5 seconds
Rapid Change of Temperature	±1%	±0.5%	100mΩ max. after the test	1E: R≦20mΩ 1H: R≦40mΩ	-55°C (30 minutes), +125°C (30 minutes), 100 cycles
Moisture Resistance	±3%	±1.5%	100mΩ max. after the test	1E: R≦20mΩ 1H: R≦40mΩ	40°C ± 2°C, 90%~95%RH, 1000 hours; 1.5 hr ON, 0.5 hr OFF cycle
Endurance at 70°C	±3%	±1%	100mΩ max. after the test	1E: R≦20mΩ 1H: R≦40mΩ	70°C ± 2°C, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
High Temperature Exposure	±1%	±0.5%	100mΩ max. after the test	1E: R≦20mΩ 1H: R≦40mΩ	+155°C, 1000 hours

The performance will be for the surface mounted condition.

Additional environmental applications can also be found at www.koaspeer.com

1/07/25