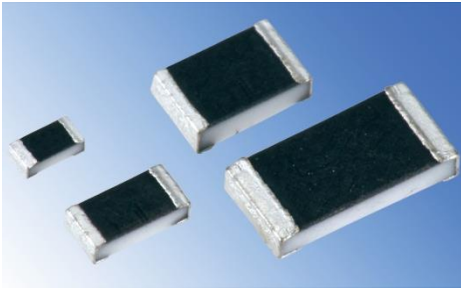


25ppm, 0.1%, ESD Tolerant High Precision Resistors



RS73 Series



KOA's new RS73-series are ESD transient tolerant high precision and high reliability resistors using thick film technology.

With a T.C.R. down to ± 25 ppm and a tolerance as low as $\pm 0.1\%$, the new RS73-series from KOA is ideal for precision designs such as high-accuracy sensing or voltage detection circuits in automotive, industrial and measuring applications, where ESD sensitivity is an issue.

The new RS73-series also features an **excellent long term stability**. The RS73-series is available in 0402, 0603, 0805 and 1206 inch.

Features

- $\pm 0.1\%$, $\pm 0.25\%$, $\pm 0.5\%$ and $\pm 1\%$ tolerances available
- ± 25 ppm/K, ± 50 ppm/K
- $\pm 0.2\%$ ~ Long term stability
- Higher rated power at $+85^\circ\text{C}$ ambient temp.
- ESD stability of thick film resistors
- Ideal for applications where thin film is not suitable
- Anti-Sulfuration type also available (RS73-RT)
- EU-RoHS compliant, AEC-Q200 qualified

Application Examples

- High precision circuits for automotive and industrial
- Motor controls
- AC adapters
- A/D signal conversion
- Switching boards
- Industrial equipment & measurement

Ratings

Type	Size (inch)	Power Rating	Rated Ambient Temp.	Rated Terminal Part Temp.	T.C.R. (ppm/K)	Resistance Range (E24 & E96)*2			Max. Working Voltage	Max. Overload Voltage	
						B: $\pm 0.1\%$	C: $\pm 0.25\%$	D: $\pm 0.5\%$ F: $\pm 1\%$			
RS73F1E RS73G1E	0402	0.125 W	+85 °C	+125 °C	$\pm 25^{*1}$	300 Ω ~ 100 k Ω	300 Ω ~ 1 M Ω		75 V	100 V	
		± 50									
RS73F1J RS73G1J	0603	0.2 W			$\pm 25^{*1}$	10 Ω ~ 1 M Ω			100 V	150 V	
					± 50						
RS73F2A RS73G2A	0805	0.25 W			$\pm 25^{*1}$	10 Ω ~ 3 M Ω	10 Ω ~ 6.8 M Ω	10 Ω ~ 10 M Ω		150 V	300 V
					± 50						
RS73F2B RS73G2B	1206	0.33 W			$\pm 25^{*1}$	10 Ω ~ 1 M Ω			200 V	400 V	
					± 50						

*1 Measurement Temp.: $+25^\circ\text{C}/+125^\circ\text{C}$. Cold T.C.R. ($-55^\circ\text{C}/+25^\circ\text{C}$) is $-50 \sim +25$ ppm/K

Operating Temperature Range: $-55^\circ\text{C} \dots +155^\circ\text{C}$

*2 Please contact KOA in case E192 values are needed

Performance

Parameter	Test method	Limit ΔR	Typical ΔR
Short Time Overload	Rated voltage x 2.5 for 5sec (Not exceeding max. overload voltage)	$\pm 0.2\%$	$\pm 0.03\%$
Resistance to soldering heat	$+260^\circ\text{C} \pm 5^\circ\text{C}$, 10sec ± 1 sec		$\pm 0.1\%$
Rapid change of temperature	-55°C (30min.) / $+125^\circ\text{C}$ (30min.), 1000cycles	$\pm 0.2\%$: 1E (300 Ω ≤R≤20k Ω) 1J (10 Ω ≤R≤1M Ω) 2A,2B (10 Ω ≤R≤10M Ω) $\pm 0.4\%$: others	$\pm 0.05\%$: 1E (300 Ω ≤R≤20k Ω) 1J (10 Ω ≤R≤1M Ω) 2A,2B (10 Ω ≤R≤10M Ω) $\pm 0.2\%$: others
High Temperature exposure	$+155^\circ\text{C}$, 1000hrs	$\pm 0.2\%$: 1E (300 Ω ≤R≤10k Ω) 1J (10 Ω ≤R≤200k Ω) 2A,2B (10 Ω ≤R≤100k Ω) $\pm 0.4-0.5\%$: others	$\pm 0.1\%$: 1E (300 Ω ≤R≤10k Ω) 1J (10 Ω ≤R≤200k Ω) 2A,2B (10 Ω ≤R≤100k Ω) $\pm 0.2-0.3\%$: others
Moisture resistance	$+40^\circ\text{C} \pm 2^\circ$, 90~95%RH, 1000hrs 1.5h ON / 0.5h OFF cycle	$\pm 0.2\%$: 1E (300 Ω ≤R≤10k Ω) 1J (10 Ω ≤R≤200k Ω) 2A,2B (10 Ω ≤R≤10M Ω) $\pm 0.4-0.5\%$: others	$\pm 0.04\%$: 1E (300 Ω ≤R≤10k Ω) 1J (10 Ω ≤R≤200k Ω) 2A,2B (10 Ω ≤R≤10M Ω) $\pm 0.08\%$: others
Rated load / Endurance	$+85^\circ\text{C} \pm 2^\circ$ or rated terminal part temp. $\pm 2^\circ$, 1000hrs, 1.5h ON/0.5h OFF cycle	$\pm 0.2\%$: 1E (300 Ω ≤R≤20k Ω) 1J (10 Ω ≤R≤1M Ω) 2A,2B (10 Ω ≤R≤10M Ω) $\pm 0.4\%$: others	$\pm 0.05\%$: 1E (300 Ω ≤R≤20k Ω) 1J (10 Ω ≤R≤1M Ω) 2A,2B (10 Ω ≤R≤10M Ω) $\pm 0.2\%$: others

RS73

RS73-RT



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