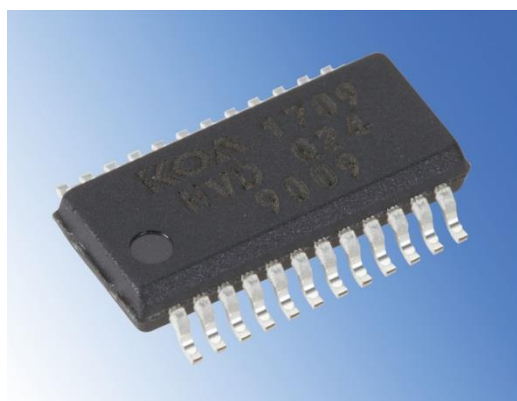


1000V 10ppm High Precision High Voltage Divider

NEW



HVD – Series



The new HVD - series from KOA is ideal for dividing of high voltages in EV and HEV applications.

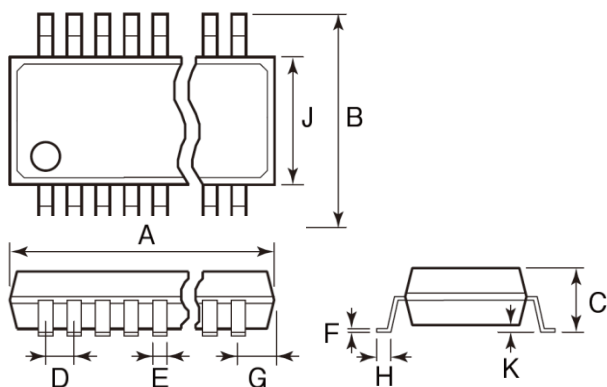
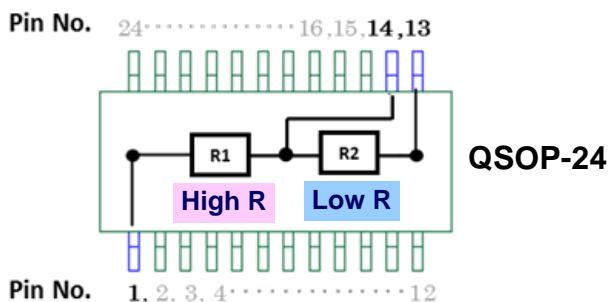
Constructed using a metal thin film resistor chip inside a standard molded IC package, the device provides 0.1% ratio tolerance and 10ppm ratio TCR.

The high integration saves board space and overall assembly costs.

Product Features

- 1000V max. working voltage
- 0.1% ratio tolerance
- 10ppm ratio TC matching
- Resistance ratio selectable from 1:10 to 1:1000
- EU-RoHS compliant
- AEC-Q200 qualified

Circuit Construction



Dimensions

Dimensions (mm)			
A	8.66 ± 0.2	F	0.20 ± 0.1
B	5.99 ± 0.2	G	0.84 ± 0.1
C	1.60 ± 0.2	H	0.66 ± 0.2
D	0.635 ± 0.1	J	3.81 ± 0.2
E	0.25 ± 0.1	K	0.18 ± 0.1

Ratings

	Max. Working Voltage	Power Rating / Element	Resistance Range *	Absolute Resistance Tolerance	Relative Resistance Tolerance	T.C.R. [ppm/K]	Relative T.C.R. Tracking [ppm/K]
High R (R1)	1000 V	250 mW	0.5 MΩ ~ 11.5 MΩ	± 0.1%, ± 0.25%, ± 0.5%, ± 1%	0.1 %	± 25	10
Low R (R2)	15 V	50 mW	4.5 kΩ ~ 1 MΩ	-	0.25 %	± 50	25

* Ratio's selectable between 1:10 and 1:1000

Rated Ambient Temperature: +85 °C

Operating Temperature Range: -55 °C ... +155 °C

For more information, please contact:

KOA Europe GmbH, Kaddenbusch 6, D-25578 Dägeling-Itzehoe, Germany

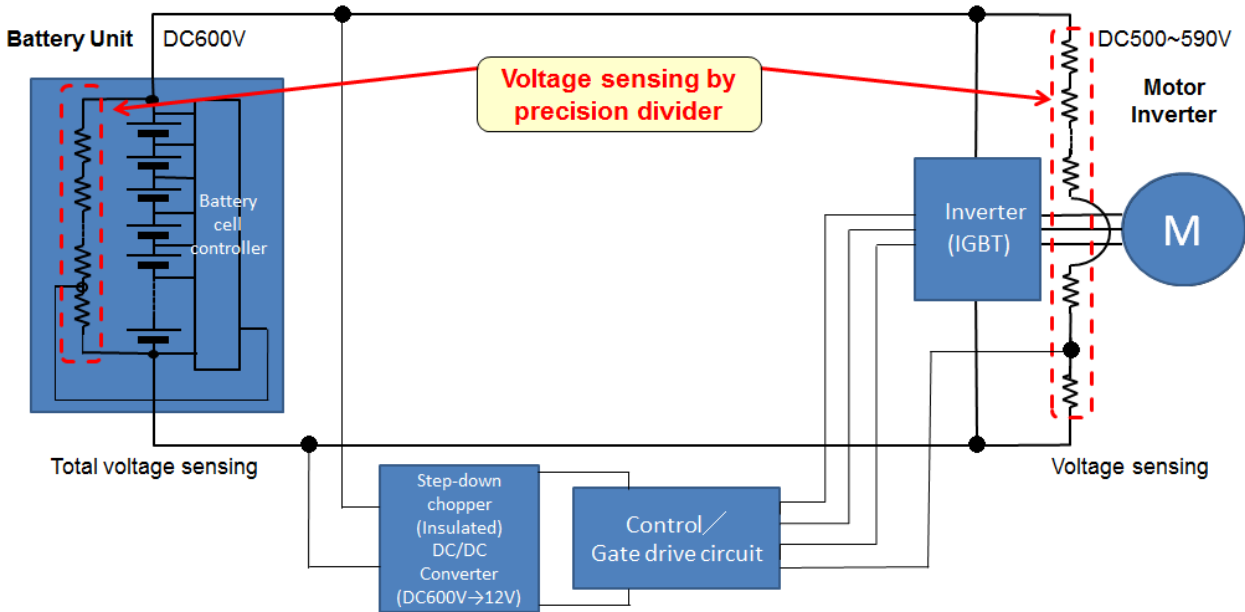
Phone: +49 (0)4821 89890, E-Mail: koa-europe@koaeurope.de, Internet: www.koaeurope.de

1000V 10ppm High Precision High Voltage Divider

NEW



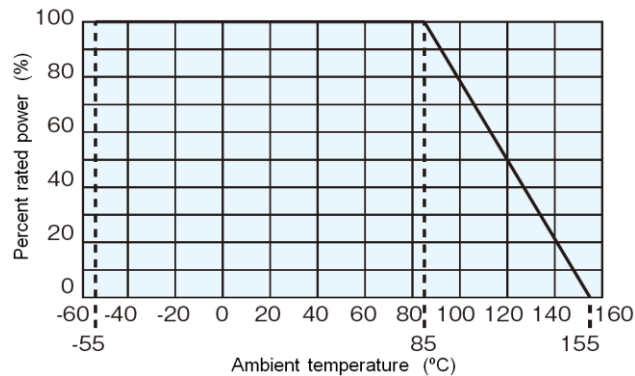
Application Example



Performance

Test Items	Performance Requirements		Test Methods
	Limit	Typical	
Resistance	Within specified tolerance	-	25 °C
T.C.R.	Within specified T.C.R.	-	+25 °C/-55 °C, +25 °C/+155 °C
Resistance to soldering heat	$\Delta R/R \pm (0.1 \%)$	0.02 %	260 °C \pm 5 °C, 10s \pm 1s
Rapid change of temperature	$\Delta R/R \pm (0.1 \%)$	0.01 %	-55 °C(30min.)/+155 °C(30min.) 1000 cycles
Moisture resistance	$\Delta R/R \pm (0.1 \%)$	0.02 %	85 °C \pm 2 °C, 85% \pm 5%RH, 1000h 1.5h ON / 0.5h OFF cycles
Endurance at +85 °C	$\Delta R/R \pm (0.1 \%)$	0.01 %	85 °C \pm 2 °C, 1000h 1.5h ON / 0.5h OFF cycles
High temperature exposure	$\Delta R/R \pm (0.1 \%)$	0.03 %	+155 °C, 1000h

Derating Curve



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