$$
\begin{array}{ccc}
V \times V \times V & \xrightarrow{\otimes \times id_V} & V \times V \\
{\scriptstyle id_V \times \otimes} \downarrow & \circlearrowleft & \downarrow {\scriptstyle \otimes} \\
V \times V & \xrightarrow{\otimes} & V \times V
\end{array}
$$