MEMS SWITCH WITH BEAM CONTACT PORTION CONTINUOUSLY EXTENDING BETWEEN INPUT AND OUTPUT TERMINAL ELECTRODES

Abstract of the Disclosure

Embodiments of the disclosure are directed to microelectromechanical system (MEMS) switches with a beam contact portion continuously extending between input and output terminal electrodes. In exemplary aspects disclosed herein, the movable beam includes a body and a contact with more conductivity and stiffness than the body. The contact continuously extends between and electrically couples the contact of the movable beam with the input and output terminal electrodes. Differing materials between the body and the contact allow for inclusion of the mechanical properties of the body (e.g., to reduce mechanical fatigue, creep, etc.) while utilizing the electrical properties of the contact (e.g., to reduce on-state electrical resistance). Accordingly, the MEMS switch provides low resistance loss during an on-state while maintaining high levels of isolation during an off-state.

Fig. 1A