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NOTE **SM-EZ-101** FOR  
INFORMATION ON BASIC  
ASSEMBLY TECHNIQUES

# SURFNOTES™

BULLETIN  
SP-103

## PRACTICAL SURFACE MOUNT CIRCUIT APPLICATIONS USING SURFBOARDS

# BUILD SURFACE MOUNT TRANSISTOR ARRAYS ON STANDARD SURFBOARDS

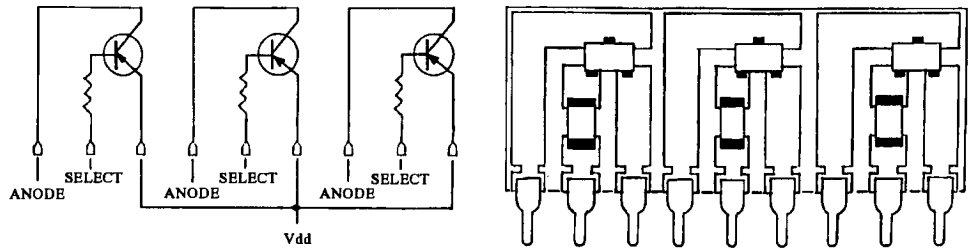
ASSEMBLIES CAN CONTAIN ADDITIONAL COMPONENTS AND SAVE SPACE

6000 AND 6100 SERIES SURFBOARDS PROVIDE THE PERFECT PLATFORMS

Interface, control, display multiplexing and amplifier circuits are just a few of the applications where groupings of transistors are commonly used. While many commercial arrays are available, they often do not perfectly fit your requirement, and they rarely contain the additional components such as resistors that form part of the circuit. With Surfboards you can build your own custom arrays to match your specifications.

### WHY GO SURFACE MOUNT?

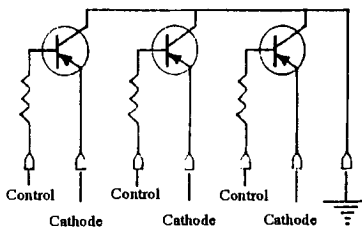
Because your custom arrays will be smaller, plug compatible with sockets, and can be easily moved around the breadboard when prototyping. Best of all, you can add the resistors and other components needed onto the same module. Surfboard 6100 series support a wide range of applications from 1 to 5 transistors. Minor foil modifications can provide additional device footprints as needed.



### 3 DIGIT COMMON ANODE DISPLAY MULTIPLEXER CIRCUIT ARRAY

SURFBOARD MODEL 6109 FILLS ROLE WITH ONLY MINOR FOIL MODIFICATIONS

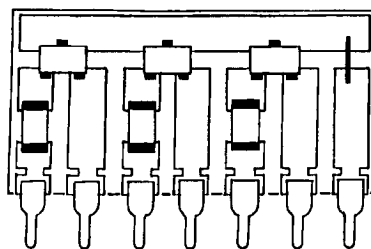
LARGER ARRAYS OF THIS TYPE CAN BE BUILT ON SURBOARD MODELS 6112 OR 6115



### 3 DIGIT COMMON CATHODE MULTIPLEXER CONTROL CIRCUIT

CIRCUIT BUILT ON MODEL 6007. LARGER ARRAYS CAN BE BUILT ON OTHER MODELS

CIRCUIT UTILIZES FOIL STRUCTURE OF 6000 SERIES FOR COMMON COLLECTORS



As you can see in the examples shown, the 6000 series Surfboards support isolated collectors and the 6100 series supports common collector arrangements. With foil modifications and jumpers you can configure Surfboards for hundreds of applications.

SEE APPLICATION NOTE **SM-EZ-101**  
FOR INFORMATION ON BASIC  
ASSEMBLY, EASY FOIL MODIFICATIONS,  
SIMPLE SOLDERING METHODS, AND  
BASIC COMPONENT DATA.

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