

Series Circuits

SC6116-45 Technical Document

1. Introduction

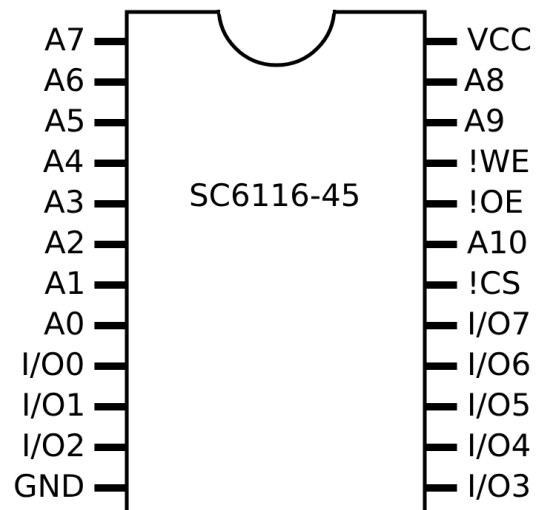
This technical document outlines the technical specifications for the Series Circuits SC6116-45, which is designed to serve as a general purpose drop-in replacement for the 6116 SRAM IC. The SC6116-45 functions as a 2K x 8-bit Static RAM (SRAM) and is designed to be fully compatible with the 6116 DIP-24 footprint and pinout.

2. Description

The SC6116-45 operates as a low-power SRAM IC designed to replace the 6116 SRAM IC without requiring any modifications to the existing PCB layout or system design. The SC6116-45 utilises a 32K x 8-bit SRAM chip on a PCB that is connected to have the same pinout and electrical characteristics as most 6116 SRAM ICs, making it a direct replacement in systems where 6116 SRAM is used.

3. Pin Configuration

Pin Labels	Description
$A_0 - A_{10}$	Address Inputs
$I/O_0 - I/O_7$	Data Input/Output
!CS	Chip Select
!WE	Write Enable
!OE	Output Enable
V_{CC}	Power
GND	Ground



4. Electrical Characteristics

- **Memory Size:** 2K x 8 bits
- **Access Time:** 45 ns (maximum)
- **Operating Voltage:** 4.5V to 5.5V
- **Low Active Power Consumption:** 200mW (typical)
- **Low Standby Power Consumption:**
 - 150μW (typical CMOS standby)
 - 15mW (typical operating)
- **Package Type:** PCB

5. Absolute Maximum Ratings

- **VCC with Respect to GND:** -0.5V to +7.0V
- **Storage Temperature:** -65°C to +150°C
- **Power Dissipation:** 0.5W
- **DC Output Current (LOW):** 20mA

6. Truth Table

!CS	!OE	!WE	Mode	I/O
H	X	X	Standby	High-Z
L	L	H	Read	Data Out
L	H	H	Read	High-Z
L	X	L	Write	Data In

7. Notes

- **Decoupling Capacitor:** The SC6116-45 has a 0.1 μF ceramic capacitor between V_{CC} and GND close to the IC to minimize noise and ensure stable operation.

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