

Series Circuits

SC6264-45 Technical Document

1. Introduction

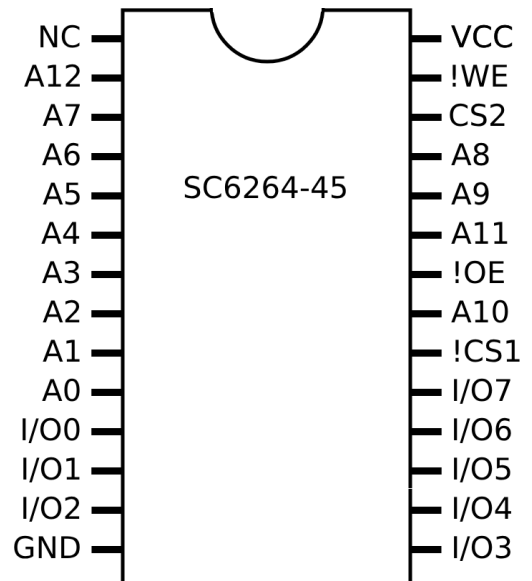
This technical document outlines the technical specifications for the Series Circuits SC6264-45, which is designed to serve as a general purpose drop-in replacement for the 6264 SRAM IC. The SC6264-45 functions as a 8K x 8-bit Static RAM (SRAM) and is designed to be fully compatible with the 6264 DIP-28 footprint and pinout.

2. Description

The SC6264-45 operates as a low-power SRAM IC designed to replace the 6264 SRAM IC without requiring any modifications to the existing PCB layout or system design. The SC6264-45 utilises a 32K x 8-bit SRAM chip, combined with discrete transistors and resistors on a PCB to replicate the functionality of the 6264's enable pins. As a result it has the same pinout and electrical characteristics as most 6264 SRAM ICs, making it a direct replacement in systems where 6264 SRAM is used.

3. Pin Configuration

Pin Labels	Description
A ₀ - A ₁₂	Address Inputs
I/O ₀ - I/O ₇	Data Input/Output
!CS1	Chip Select 1
CS2	Chip Select 2
!WE	Write Enable
!OE	Output Enable
NC	No Connection
V _{CC}	Power
GND	Ground



4. Electrical Characteristics

- **Memory Size:** 8K 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

!CS1	CS2	!OE	!WE	Mode	I/O
H	X	X	X	Standby	High-Z
X	L	X	X	Standby	High-Z
L	H	H	H	Output Disabled	High-Z
L	H	L	H	Read	Data Out
L	H	H	L	Write	Data In
L	H	L	L	Write	Data In

7. Notes

- **Decoupling Capacitor:** The SC6264-45 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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