



## MILITARY HIGH SPEED 16K x 8 CMOS PROM/RPROM

### KEY FEATURES

- **Ultra-Fast Access Time**  
— 45 ns
- **Low Power Consumption**
- **Fast Programming**
- **Pin Compatible with Am27S51 and N82HS1281**
- **Immune to Latch-Up**  
— Up to 200 mA
- **ESD Protection Exceeds 2000 V**

### GENERAL DESCRIPTION

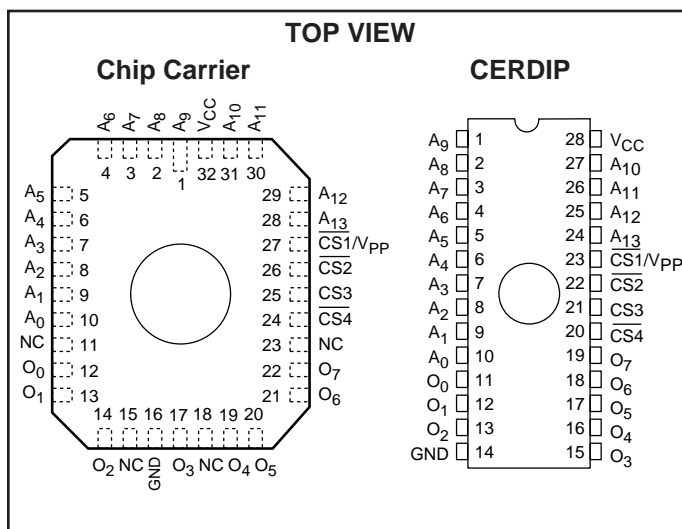
The WS57C51C is a High Performance 128K UV Erasable Electrically Re-Programmable Read Only Memory (RPROM). It is manufactured in an advanced CMOS technology which enables it to operate at Bipolar PROM speeds while consuming only 25% of the power required by its Bipolar counterparts. A further advantage of the WS57C51C over Bipolar PROM devices is the fact that it utilizes a proven EPROM technology. This enables the entire memory array to be tested for switching characteristics and functionality after assembly. Unlike devices which cannot be erased, every WS57C51C in a windowed package is 100% tested with worst case test patterns both before and after assembly.

The WS57C51C provides a low power alternative to those designs which are committed to a Bipolar PROM footprint. It is a direct drop-in replacement for a Bipolar PROM of the same architecture (16K x 8). No software, hardware or layout changes need be performed.

### MODE SELECTION

MODE \ PINS	$\overline{CS1}/V_{PP}$	$\overline{CS2}$	$CS3$	$\overline{CS4}$	$V_{CC}$	OUTPUTS
Read	$V_{IL}$	$V_{IL}$	$V_{IH}$	$V_{IL}$	$V_{CC}$	$D_{OUT}$
Output Disable	$V_{IH}$	X	X	X	$V_{CC}$	High Z
Output Disable	X	$V_{IH}$	X	X	$V_{CC}$	High Z
Output Disable	X	X	$V_{IL}$	X	$V_{CC}$	High Z
Output Disable	X	X	X	$V_{IH}$	$V_{CC}$	High Z
Program	$V_{PP}$	$V_{IH}$	X	X	$V_{CC}$	$D_{IN}$
Program Verify	$V_{IL}$	$V_{IL}$	$V_{IH}$	$V_{IL}$	$V_{CC}$	$D_{OUT}$

### PIN CONFIGURATION



### PRODUCT SELECTION GUIDE

PARAMETER	WS57C51C-45	WS57C51C-55	WS57C51C-70
Address Access Time (Max)	45 ns	55 ns	70 ns
CS to Output Valid Time (Max)	20 ns	25 ns	30 ns

**ORDERING INFORMATION**

PART NUMBER	SPEED	PACKAGE TYPE	PACKAGE DRAWING	OPERATING TEMPERATURE RANGE	WSI MANUFACTURING PROCEDURE
WS57C51C-45CMB	45	32 Pad CLLCC	C2	Military	MIL-STD-883C
WS57C51C-45DMB	45	28 Pin CERDIP, 0.6"	D2	Military	MIL-STD-883C
WS57C51C-45TMB	45	28 Pin CERDIP, 0.3"	T2	Military	MIL-STD-883C
WS57C51C-55CMB	55	32 Pad CLLCC	C2	Military	MIL-STD-883C
WS57C51C-55DMB	55	28 Pin CERDIP, 0.6"	D2	Military	MIL-STD-883C
WS57C51C-55TMB	55	28 Pin CERDIP, 0.3"	T2	Military	MIL-STD-883C

**NOTES:** 9. The actual part marking will not include the initials "WS."

**PROGRAMMING/ALGORITHMS/ERASURE/PROGRAMMERS**

**REFER TO  
PAGE 5-1**

The WS57C51C is programmed using Algorithm D shown on page 5-9.

*For complete data sheet and electrical specifications see page 2-47.*

