

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-UpUp to 200 mA
- ESD Protection Exceeds 2000 V

GENERAL DESCRIPTION

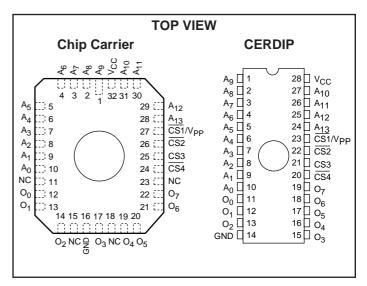
The WS57C51C is a High Performance 128K UV Erasable Electrically Re-Programmable Read Only Memory (RPROM). It is manufactured in an advanced CMOS technology which enables it to operate at Bipolar PROM speeds while consuming only 25% of the power required by its Bipolar counterparts. A further advantage 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 WS5751C 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

| PINS MODE | CS1/ V _{PP} | CS2 | CS3 | CS4 | vcc | OUTPUTS |
|-------------------|-------------------------|-----------------|-----------------|-----------------|-----------------|------------------|
| Read | V _{IL} | VIL | VIH | VIL | Vcc | DOUT |
| Output Disable | VIH | Х | Х | Х | Vcc | High Z |
| Output Disable | Х | VIH | Х | Х | VCC | High Z |
| Output Disable | Х | Х | V _{IL} | Х | V _{CC} | High Z |
| Output Disable | Х | Х | Х | V _{IH} | V _{CC} | High Z |
| Program | V _{PP} | V _{IH} | Х | Х | Vcc | D _{IN} |
| Program Verify | V _{IL} | V _{IL} | V _{IH} | V _{IL} | Vcc | 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 |

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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.