

Migrating from FM25V01 to FM25V01A – KBA96040

Question : Is FM25V01A a drop-in replacement for the FM25V01 device? What are differences between the new (FM25V01A) and the old (FM25V01) parts?

Answer: The FM25V01A is a new silicon revision of the existing FM25V01 device and is a drop-in replacement for the FM25V01 device. The software can read the device ID to differentiate between FM25V01A and FM25V01. The device ID for the FM25V01A is 7F7F7F7F7F7FC22108h and for the FM25V01 is 7F7F7F7F7F7FC22100h. Apart from this no other changes are required in firmware to migrate. However, the two silicon revisions have the following features/parameters differences, which should be evaluated before migrating from the older silicon to the newer silicon.

Features/ Parameters	FM25V01	FM25V01A
Reserved opcode	No specified	11000011b 11000010b 01011010b 01011011b
Device ID	7F7F7F7F7F7FC22100h	7F7F7F7F7F7FC22108h
Electrostatic discharge voltage (Human Body Model)	1000 V	2000 V
Electrostatic discharge voltage (Charged Device Model)	1250 V	500 V
Electrostatic discharge voltage (Machine Model)	200	Not specified
Input resistance (/HOLD pin), for $V_{IN} = V_{IH}$ (min)	40 k Ω	30 k Ω
Input resistance (/HOLD pin), for $V_{IN} = V_{IL}$ (max)	1000 k Ω	800 k Ω
Thermal resistance (θ_{JA} , junction to ambient), 8-pin SOIC	145 °C/W	146 °C/W
Clock HIGH time (t_{CH})	20 ns	18 ns
Clock LOW time (t_{CL})	20 ns	18 ns
Output data valid time (t_{ODV})	18 ns	16 ns

Power-up V_{DD} (min) to first access (/CS LOW)	250 μ s	1000 μ s
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