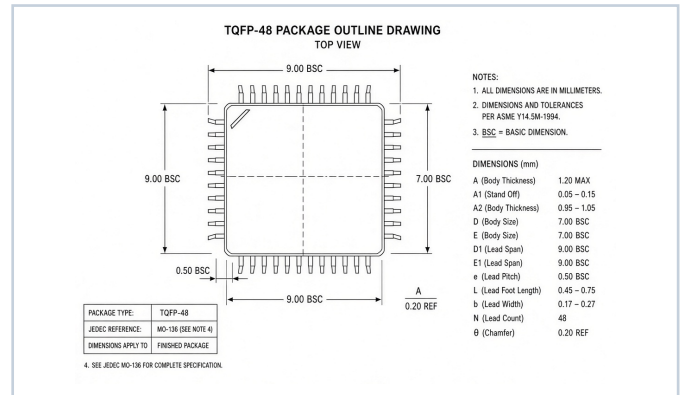
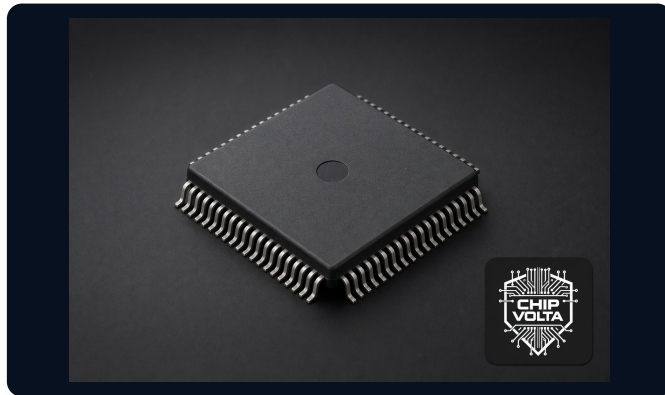


CV32-BMS

Automotive Pack Supervisor MCU · 32-bit MCUs

Package: TQFP-48, 0.50 mm pitch



Description

Low-power 32-bit controller for battery pack supervision and contactor logic. Hardware CRC, clock supervisor and dual CAN-FD for redundant communications.

Features

- 120 MHz 32-bit core, 256 KB flash
- Dual CAN-FD controllers
- Hardware CRC and clock supervisor
- 2.7 V to 5.5 V supply
- Tj -40 °C to +150 °C

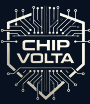
Absolute maximum ratings

Parameter	Value	Unit
VDD	-0.3 to +6.0	V
CAN pins	-0.3 to +6.0	V
Junction temperature	-40 to +150	°C

Stresses beyond these limits may cause permanent damage. These are stress ratings only.

Typical applications

- Battery pack supervision
- Contactor control
- Thermal managers



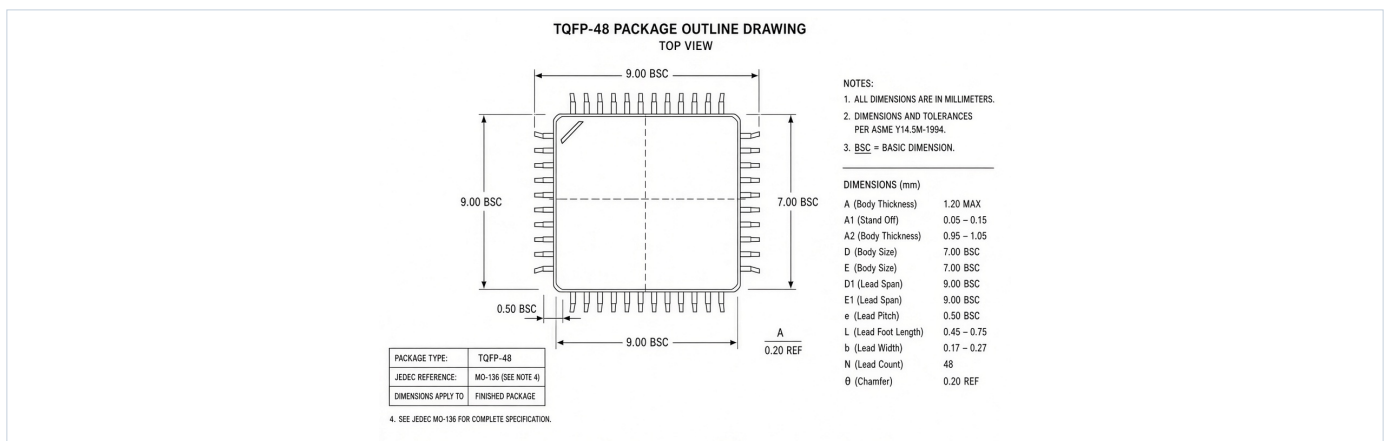
Electrical characteristics ($T_j = 25\text{ °C}$ unless noted)

Parameter	Min	Typ	Max	Unit
VDD	2.7	3.3 / 5.0	5.5	V
fCPU	—	—	120	MHz
IDD stop	—	18	—	μA
CAN-FD bitrate	—	—	5	Mbit/s

Pin assignment (simplified)

Pin	Name	Function
1	VDD	Supply
2	VSS	Ground
8–9	CAN1	CAN-FD channel 1
10–11	CAN2	CAN-FD channel 2
20–24	GPIO	Contact drive logic
40	NRST	Reset

Package outline / mechanical sketch



Ordering and document control

This public brief supports schematic evaluation. The controlled datasheet (full electrical tables, SOA graphs, reliability summary, recommended land pattern and PPAP package) is released through Chip Volta applications engineering after an RFQ. Request it on the Contact / RFQ page quoting CV32-BMS. Samples follow the same path. Shorter lead-time builds use the released test program.

Quality: Chip Volta quality management system is certified by Bureau Veritas. Devices are specified to meet applicable industry standards. Values in this brief are typical catalog figures and may be revised without notice until the controlled revision is frozen for a customer program.