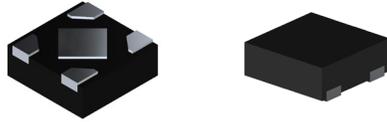


CDFLD17-08 THRU CDFLD17-33
**SURFACE MOUNT SILICON
LOW DROPOUT REGULATOR
0.8 THRU 3.3 VOLT**

DFN1X1 CASE
DESCRIPTION:

The CENTRAL SEMICONDUCTOR CDFLD SERIES is a high-performance, low-dropout linear regulator with 1.6V–6.5V input and 0.8V–3.3V output. With ultra-low quiescent current and built-in failsafe protection, it's ideal for compact, power-sensitive applications in portable electronics, sensors, and embedded systems.

MARKING CODES

CDFLD17-08: AV

CDFLD17-18: BV

CDFLD17-28: CV

CDFLD17-33: CV

APPLICATIONS:

- Portable devices
- Consumer electronics
- Bluetooth headsets
- Fitness trackers
- Non-implant medical devices
- Smartphones and tablets
- RF and wireless communication

FEATURES:

- Input voltage range: 1.6V to 5.5V
- Output voltage range: 0.8V to 3.3V
- Low dropout voltage: 170mV at 300mA
- Ultra-low quiescent current: 25µA TYP
- Compatible with 1µF ceramic capacitors
- Built-in thermal and short-circuit protection

MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

	SYMBOL		UNITS
Voltage range at Input	V_{IN}	-0.3 to 6.5	V
Voltage range at Output	V_{OUT}	-0.3 to V_{IN}	V
Output Current	I_{OUT}	300	mA
Operating Junction Temperature	T_J	-40 to +150	$^\circ\text{C}$
Storage Junction Temperature	T_{stg}	-65 to +150	$^\circ\text{C}$
Junction to Ambient Thermal Resistance	$R_{\theta JA}$	250	$^\circ\text{C/W}$

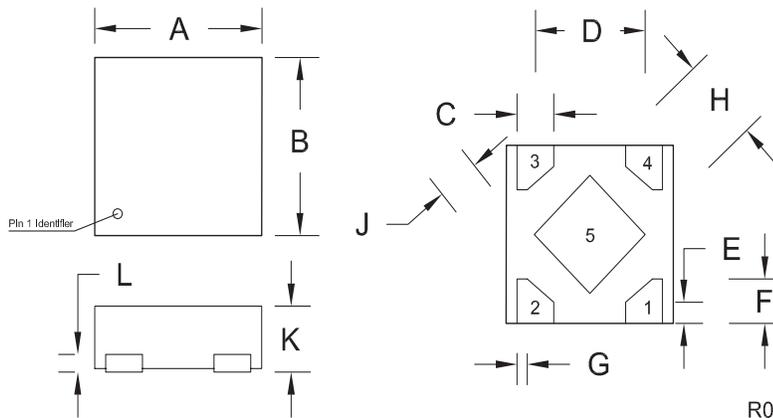
ELECTRICAL CHARACTERISTICS: ($T_J=25^\circ\text{C}$, $V_{IN} = V_{OUT} + 1.0\text{V}$, $I_{OUT} = 1.0\text{mA}$, $C_{in} = C_{out} = 1.0\mu\text{F}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
V_{IN}	above	1.6		5.5	V
V_{OUT}	above	0.8		3.3	V
V_{OUT} Accuracy	$V_{OUT} \geq 2.0\text{V}$	-0.1		1.0	%
I_{LIM}	$V_{OUT}=0.9 * V_{OUT\ NOM}$		480		mA
V_{DO}	$V_{OUT}=0.9*0.8\text{V}$, $I_{OUT}=300\text{mA}$		950		mV
V_{DO}	$V_{OUT}=0.9*1.8\text{V}$, $I_{OUT}=300\text{mA}$		280		mV
V_{DO}	$V_{OUT}=0.9*2.8\text{V}$, $I_{OUT}=300\text{mA}$		170		mV
V_{DO}	$V_{OUT}=0.9*3.3\text{V}$, $I_{OUT}=300\text{mA}$		150		mV
$\Delta V_{OUT}/$ ($\Delta V_{IN} * \Delta V_{OUT}$)	$V_{OUT} + 1.0 \leq V_{IN} \leq 5.5\text{V}$		0.02		%/V
ΔV_{OUT}	$I_{OUT}=0\text{mA}$ to 350mA			40	mV
I_Q	above		25		μA
I_{SC}	$V_{OUT}=0$		220		mA
I_{SHDN}	$V_{EN}=0$, $V_{IN}=5.5\text{V}$		0.1		μA

R3 (27-February 2026)

CDFLD17-08 THRU CDFLD17-33
**SURFACE MOUNT SILICON
 LOW DROPOUT REGULATOR
 0.8 THRU 3.3 VOLT**
ELECTRICAL CHARACTERISTICS - Continued: ($T_J=25^\circ\text{C}$, $V_{IN} = V_{OUT} + 1.0\text{V}$, $I_{OUT} = 1.0\text{mA}$, $C_{in} = C_{out} = 1.0\mu\text{F}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
PSRR	$I_{OUT}=20\text{mA}$, $f=100\text{Hz}$		80		dB
PSRR	$I_{OUT}=20\text{mA}$, $f=1\text{kHz}$		75		dB
PSRR	$I_{OUT}=20\text{mA}$, $f=10\text{kHz}$		70		dB
PSRR	$I_{OUT}=20\text{mA}$, $f=100\text{kHz}$		60		dB
PSRR	$I_{OUT}=20\text{mA}$, $f=1\text{MHz}$		45		dB
V_{IH}	$T_J=25^\circ\text{C}$	1.0			V
V_{IL}	$T_J=25^\circ\text{C}$			0.4	V
I_{EN}	$V_{EN}=5.5\text{V}$		0.1		μA
e_n	$f=10$ to 100kHz , $V_{OUT}=1.8\text{V}$, $I_{OUT}=1.0\text{mA}$		50		$\mu\text{V}/\sqrt{\text{Hz}}$
T_{SDH}	$I_{OUT}=1.0\text{mA}$		175		$^\circ\text{C}$
T_{SDL}	$I_{OUT}=1.0\text{mA}$		145		$^\circ\text{C}$
R_{DISCH}	$V_{EN} \leq 0.2\text{V}$, $V_{IN}=5.0\text{V}$		100		Ω
t_{ON}	$V_{EN}=\text{HIGH}$, $V_{OUT}=0.9 \cdot V_{OUT\text{ NOM}}$		120		μs

DFN1X1 CASE - MECHANICAL OUTLINE


SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.037	0.041	0.95	1.05
B	0.037	0.041	0.95	1.05
C	0.007	0.011	0.17	0.27
D	0.024	0.028	0.60	0.70
E	0.003	0.007	0.07	0.17
F	0.008	0.012	0.20	0.30
G	0.001	0.005	0.02	0.12
H	0.017	0.021	0.43	0.53
J	0.006	-	0.15	-
K	0.013	0.016	0.34	0.40
L	0.004		0.10	

DFN1X1 (REV: R0)

LEAD CODE:

- 1) GND
- 2) EN
- 3) VIN
- 4) Vout
- 5) GND

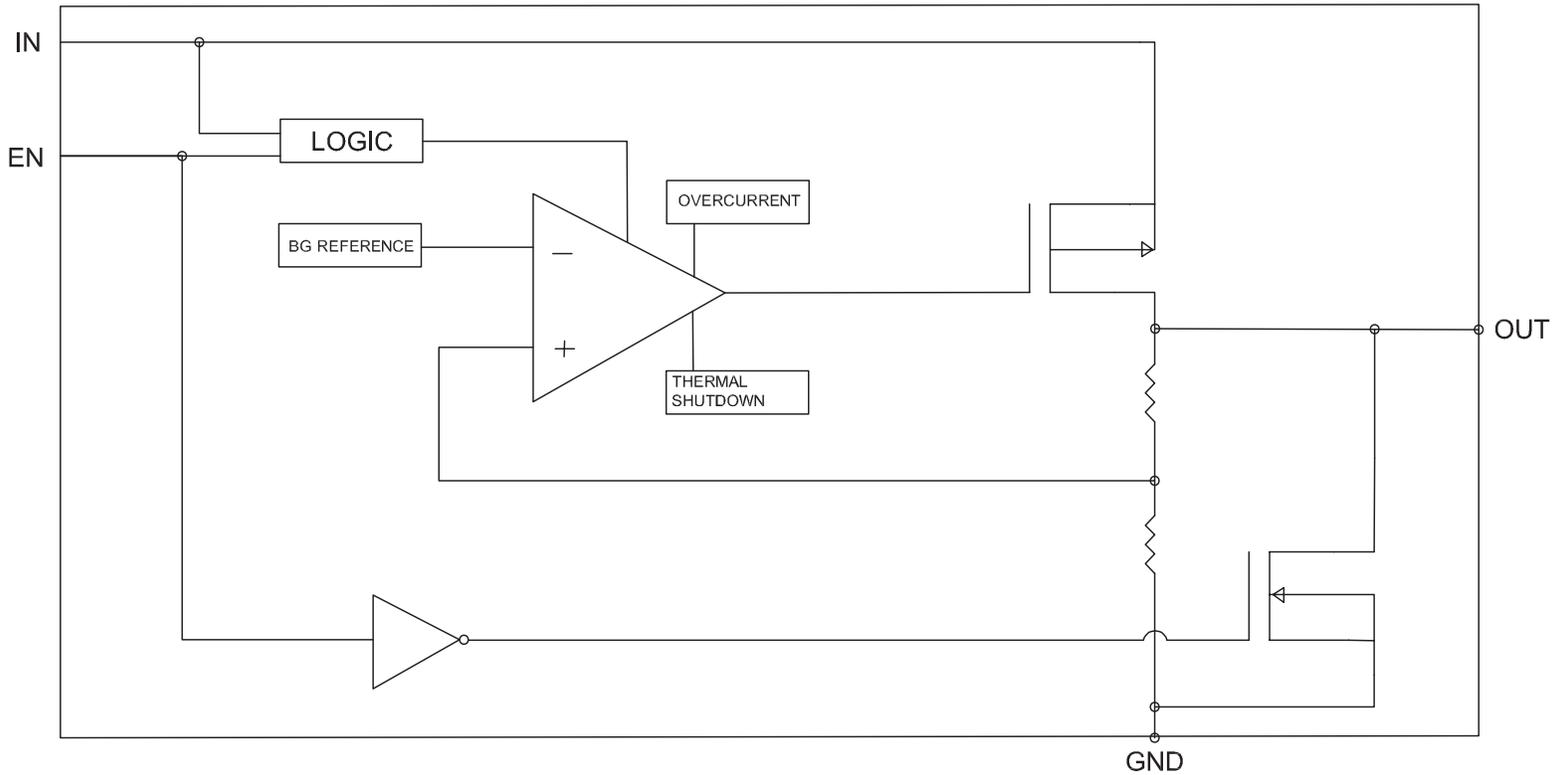
MARKING:

- CDFLD17-08: AV
 CDFLD17-18: BV
 CDFLD17-28: CV
 CDFLD17-33: CV

R3 (27-February 2026)

CDFLD17-08 THRU CDFLD17-33
SURFACE MOUNT SILICON
LOW DROPOUT REGULATOR
0.8 THRU 3.3 VOLT

BLOCK DIAGRAM



LEAD CODE:

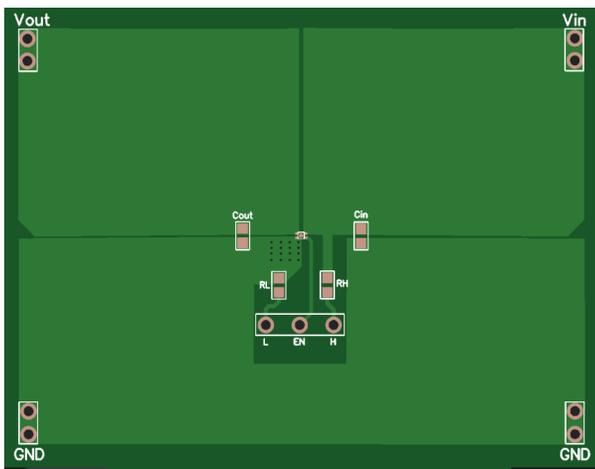
- 1) GND
- 2) EN
- 3) VIN
- 4) Vout
- 5) GND

R3 (27-February 2026)

CDFLD17-08 THRU CDFLD17-33

**SURFACE MOUNT SILICON
LOW DROPOUT REGULATOR
0.8 THRU 3.3 VOLT**

PCB DESIGN CONSIDERATIONS



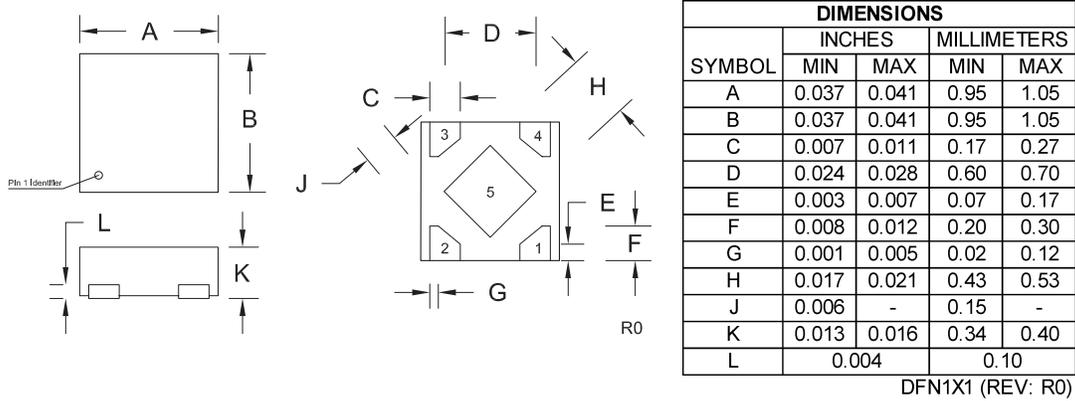
- PCB dimensions: 98mm x 84mm
- Copper pad dimensions: 4x, 45mm x 32mm
- Outer copper weight: 2 oz
- Inner copper weight: 1 oz
- Place input and output capacitors as close to the device as possible
- Use copper planes for device connections and 4 PCB layers to optimize thermal performance
- Place thermal vias around the device to distribute the heat.

R3 (27-February 2026)

Package Details

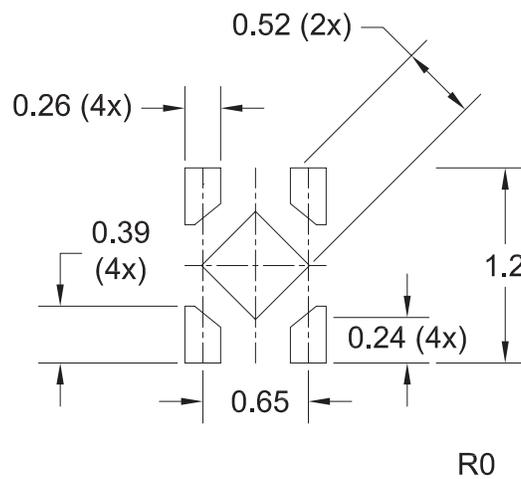
DFN1X1 Case

Mechanical Drawing



Part Marking: 2 Character Alpha/Numeric Code

Mounting Pad Geometry (Dimensions in mm)



R1 (26-February 2026)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.
145 Adams Avenue
Hauppauge, NY 11788 USA
Main Tel: (631) 435-1110
Main Fax: (631) 435-1824
Support Team Fax: (631) 435-3388
www.centrasemi.com

Worldwide Field Representatives:
www.centrasemi.com/wwreps

Worldwide Distributors:
www.centrasemi.com/wwdistributors

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: www.centrasemi.com/terms