Description

CRM50TF05FA is half-bridge Modules (IPM) designed for advanced appliance motor drive applications such as energy efficient fans and pumps.
CRM50TF05FA Integrated 2 fast recovery MOSFETs and 1 high voltage gate driver in a familiar package. This module is optimized for low EMI characteristics.

Features

- 500V half-bridge including high voltage gate drivers
- HVIC Temperature-Sensing Built-In for temperature Monitoring
- Works with 3.3V/5V MCU, Active-High interface
- HVIC for Under-voltage Protection
- Integrated bootstrap functionality



ESOP-9

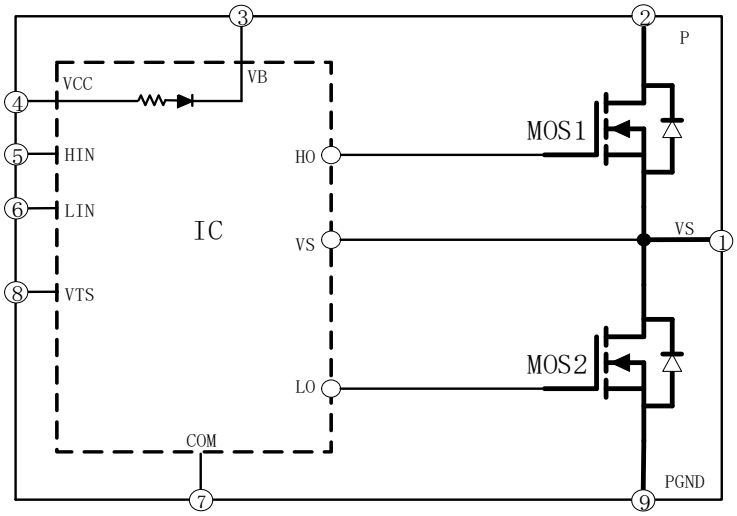
Applications

- Energy efficient fans
- Pumps

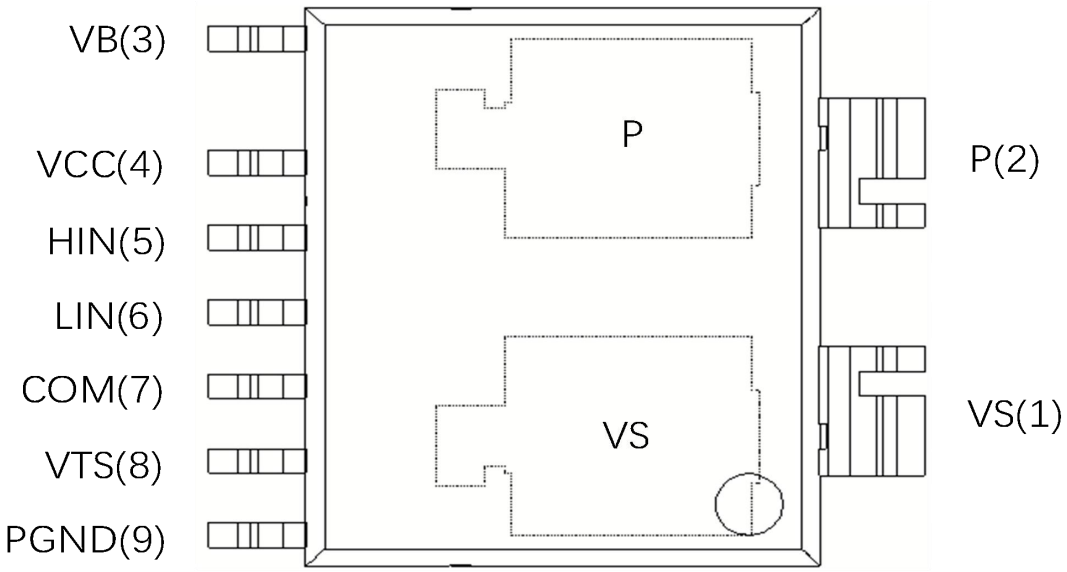
Package Marking and Ordering Information

Part #	Marking	Package	Packing	Quantity	V_{TS}
CRM50TF05FA	CRM50TF05FA	ESOP-9	Taping	2500	Yes

Internal Electrical Schematic



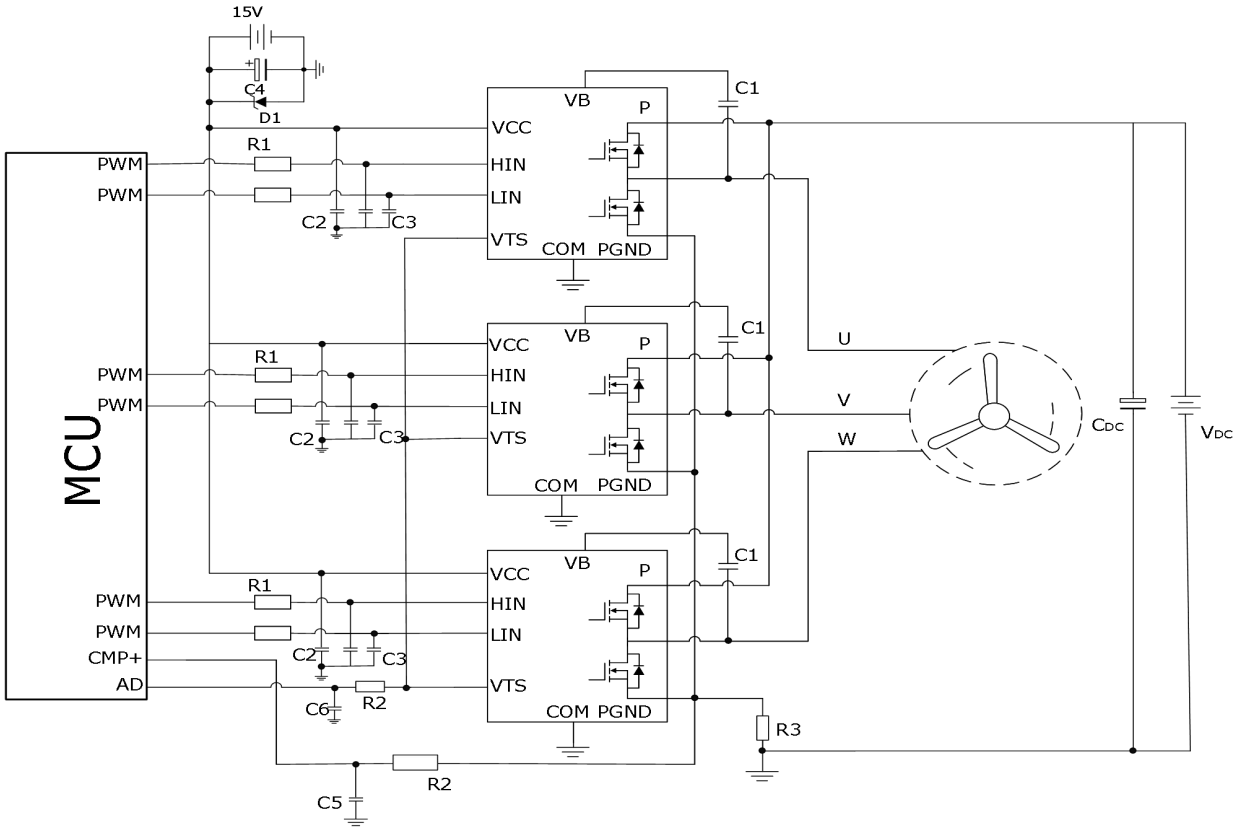
Module Pin-Out Description



Top view

Pin Number	Pin Name	Description
1	VS	High Side Floating Offset Voltage
2	P	DC Bus Voltage Positive
3	VB	High Side Floating Supply Voltage
4	VCC	Power supply for Low side
5	HIN	Logic Input for High Side Gate Driver
6	LIN	Logic Input for Low Side Gate Driver
7	COM	Logic Ground
8	VTS	Temperature-sensing Voltage Output
9	PGND	Source for low side MOSFET

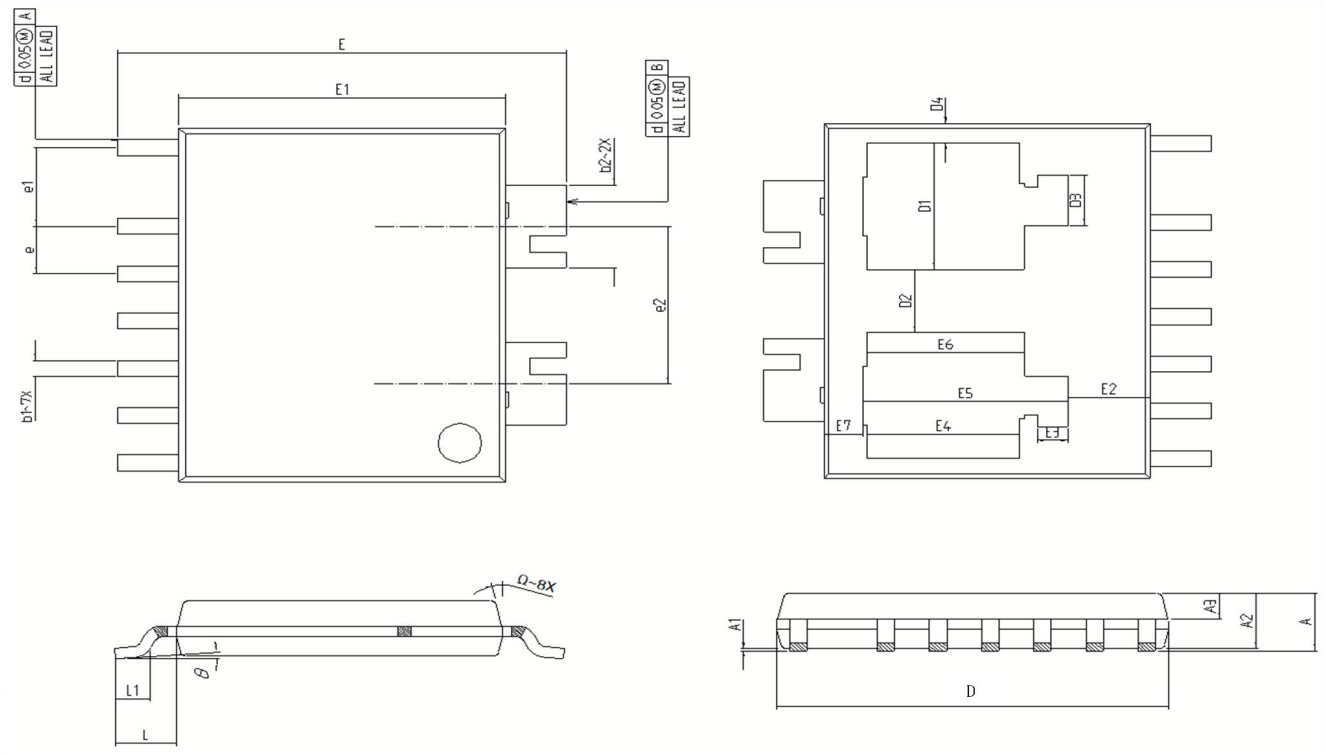
Application Circuit



Package Outline

ESOP-9

UNIT:mm



SYMBOL	MILLIMETER			SYMBOL	MILLIMETER		
	MIN	NOM	MAX		MIN	NOM	MAX
A	-	-	1.52	E2		1.9	
A1	0.02	-	0.12	E3		0.7	
A2	1.35	1.4	1.45	E4		3.5	
A3	0.6	0.65	0.7	E5		4.7	
b1	0.37	-	0.43	E6		3.6	
b2	-	-	2.13	E7		0.9	
D	8.95	9	9.05	e		1.2(BSC)	
D1	-	3.2	-	e1		2(BSC)	
D2	-	1.6	-	e2		4(BSC)	
D3	-	1.28	-	L		1.4	
D4	-	0.5	-	L1		0.8	
E	10.1	10.3	10.5	Ω		13°	
E1	7.45	7.5	7.55	θ		4°	