

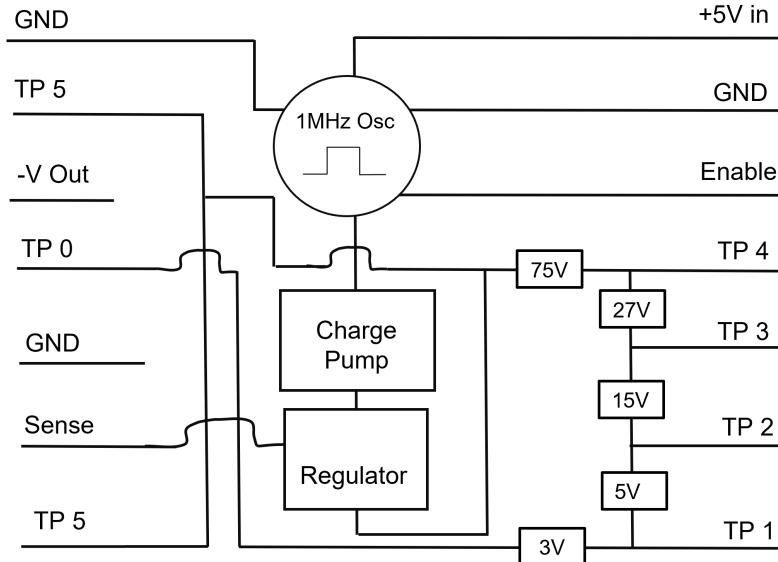
GENERAL DESCRIPTION

The MCI050N125D14A is an inverting charge-pump multiplier featuring -125V output suited for driving SP2T PIN diode switches. Operating from a +5V supply voltage, the MCI050N125D14A uses multiple stages to invert and multiply the +5V into a regulated -125V at up to 4mA out. The charge pump has a logic enable which can be left unconnected or driven hi (3.3 to 5V) for normal operation, or apply a logic low to disable the charge pump. Five testpoint pins allow for lower voltage outputs in 5V increments, -125V to -25V

FEATURES

- 1 MHz Oscillator
- 12mm x 6mm x 1.8mm DFN
- Output -125V at 4 mA
- Compatible with:

FUNCTION BLOCK DIAGRAM

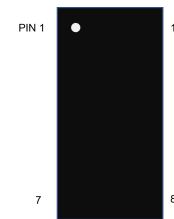


MECHANICAL

The MCI050N125D14A consists of discrete active and passive components on a laminate substrate and encapsulated using a transfer mold process. This forms a .48" x .24" 14 lead DFN SMT assembly designed for integration into an integrated microwave assembly.

ECCN Code EAR99

MCI050N125D14A is RoHS 3 (EU 2015/863) compliant.



PIN CONNECTIONS

Connect 1 uF Capacitor from Pin 3 to Gnd for Bypassing
Pins 2 and 7 internally connected

- 1 Ground
- 2 Testpoint 5
- 3 -125V
- 4 Testpoint 0
- 5 Ground
- 6 Sense
- 7 Testpoint 5
- 8 Testpoint 1
- 9 Testpoint 2
- 10 Testpoint 3
- 11 Testpoint 4
- 12 Enable (high)
- 13 Ground
- 14 Input +5V

ESD Sensitivity HBM Class 1B

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNITS
DM	Oscillator frequency		0	f	2.1	MHz
Id	Supply Quiescent Current	Iload = 0mA			1	mA
V+	Supply Voltage		2.4	2	2.8	V
VO	Voltage Output		-150	-152	-150	V
nrk	Noise	from package 1 uF external Bypass Capacitor mounted < 0.20"		20		mVpk
IO - pin_0002	Output Current			4		mA
Ts	Storage Temperature		-25		120	Deg C
To	Operating Temperature		-25		125	Deg C

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNITS
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ELECTRICAL SPECIFICATIONS

Vpos +2V

0 High Z

1 -152V

EN -VOUT

TRUTH TABLE