SERIES VOLTAGE REFERENCE

Check for Samples: REF3140-DIE

FEATURES

- **Low Dropout**
- **High Output Current**
- **High Accuracy**
- **Low I_Q**

APPLICATIONS

- **Portable, Battery Powered Equipment**
- **Data Acquisition Systems**
- **Medical Equipment**
- **Hand Held Test Equipment**

DESCRIPTION

The REF3140 is a precision, low power, low dropout, series voltage reference.

The REF3140's small size and low power consumption make it ideal for portable and battery-powered applications. The REF3140 does not require a load capacitor, but is stable with any capacitive load and can sink/source up to 10mA of output current.

Unloaded, the REF3140 can be operated on supplies down to 5 mV above the output voltage.

ORDERING INFORMATION(1)

PRODUCT	PACKAGE DESIGNATOR	PACKAGE	ORDERABLE PART NUMBER	PACKAGE QUANTITY
REF3140	TD	Bare die in waffle pack(2)	REF3140TDD1	252
			REF3140TDD2	10

(1) For the most current package and ordering information, see the Package Option Addendum at the end of this document, or see the TI web site at www.ti.com.

(2) Processing is per the Texas Instruments commercial production baseline and is in compliance with the Texas Instruments Quality Control System in effect at the time of manufacture. Electrical screening consists of DC parametric and functional testing at room temperature only. Unless otherwise specified by Texas Instruments AC performance and performance over temperature is not warranted. Visual Inspection is performed in accordance with MIL-STD-883 Test Method 2010 Condition B at 75X minimum.

Please be aware that an important notice concerning availability, standard warranty, and use in critical applications of Texas Instruments semiconductor products and disclaimers thereto appears at the end of this data sheet.

PRODUCTION DATA information is current as of publication date. Products conform to specifications per the terms of the Texas Instruments standard warranty. Production processing does not necessarily include testing of all parameters.

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This integrated circuit can be damaged by ESD. Texas Instruments recommends that all integrated circuits be handled with appropriate precautions. Failure to observe proper handling and installation procedures can cause damage.

ESD damage can range from subtle performance degradation to complete device failure. Precision integrated circuits may be more susceptible to damage because very small parametric changes could cause the device not to meet its published specifications.

BARE DIE INFORMATION

DIE THICKNESS	BACKSIDE FINISH	BACKSIDE POTENTIAL	BOND PAD METALLIZATION COMPOSITION	BOND PAD THICKNESS
15 mils.	Silicon with backgrind	Floating	Ti/AlSiCu/TiN	800 nm

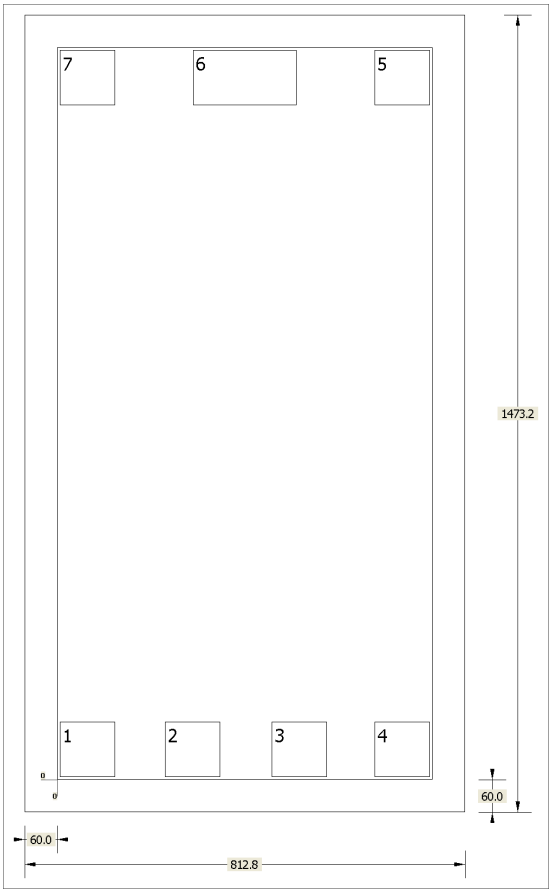


Table 1. Bond Pad Coordinates in Microns(1)

DESCRIPTION	PAD NUMBER	X MIN	Y MIN	X MAX	Y MAX
OUT	1	5	5	107	107
OUT	2	198.6	5	300.6	107
GND	3	396.2	5	498.2	107
GND	4	585.8	5	687.8	107
N/C	5	585.8	1246.2	687.8	1348.2
IN	6	251.15	1246.2	441.65	1348.2
N/C	7	5	1246.2	107	1348.2

(1) Substrate N/C.

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PACKAGING INFORMATION

Orderable Device	Status (1)	Package Type	Package Drawing	Pins	Package Qty	Eco Plan (2)	Lead/ Ball Finish	MSL Peak Temp (3)	Samples (Requires Login)
REF3140TDD1	ACTIVE			0	252	TBD	Call TI	N / A for Pkg Type	
REF3140TDD2	ACTIVE			0	10	TBD	Call TI	N / A for Pkg Type	

(1) The marketing status values are defined as follows:
ACTIVE: Product device recommended for new designs.
LIFEBUY: TI has announced that the device will be discontinued, and a lifetime-buy period is in effect.
NRND: Not recommended for new designs. Device is in production to support existing customers, but TI does not recommend using this part in a new design.
PREVIEW: Device has been announced but is not in production. Samples may or may not be available.
OBSOLETE: TI has discontinued the production of the device.

(2) Eco Plan - The planned eco-friendly classification: Pb-Free (RoHS), Pb-Free (RoHS Exempt), or Green (RoHS & no Sb/Br) - please check http://www.ti.com/productcontent for the latest availability information and additional product content details.
TBD: The Pb-Free/Green conversion plan has not been defined.
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(3) MSL, Peak Temp. -- The Moisture Sensitivity Level rating according to the JEDEC industry standard classifications, and peak solder temperature.

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