



# SMJ 300-7A

Quad-Diode Mixer

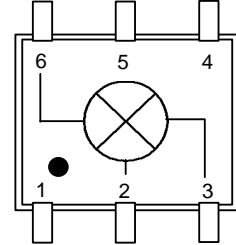
The Communications Edge™

Preliminary Product Information

## Product Features

- Input IP3 +15 dBm
- RF Freq 0.5 - 300 MHz
- LO Freq 0.5 - 300 MHz
- IF Freq DC - 200 MHz
- LO Drive Level +7 dBm

## Functional Diagram



Function	Pin No.
Ground	1
IF	2
RF	3
Ground	4-5
LO	6

## Specifications

Parameters	Units	Minimum	Typical	Maximum	Comments
RF Frequency	MHz	0.5		300	
LO Frequency	MHz	0.5		300	
IF Frequency	MHz	DC		200	
SSB Conversion Loss	dB		5.5		
L-R Isolation	dB		45		
L-I Isolation	dB		35		
IIP3	dBm		+15		
LO Drive	dBm		+7		
RF - Return Loss	dB		11		
LO - Return Loss	dB		14		
IF - Return Loss	dB		11		

Test conditions unless otherwise noted  
 1. Tested in a 50 Ohm System, low Side LO.

## Recommended Maximum Rating

Parameters	Rating
Operating Case Temperature	-40 to +70 °C
Storage Temperature	-65 to +100 °C
RF Input Power at 25°C (continuous)	+13 dBm

## Ordering Information

Part No.	Description
SMJ 300-7A	Diode Mixer (Available in Tape & Reel)
SMJ 300-7A-PCB	Fully Assembled Application Circuit

This document contains information on a new product.  
 Specifications and information are subject to change without notice



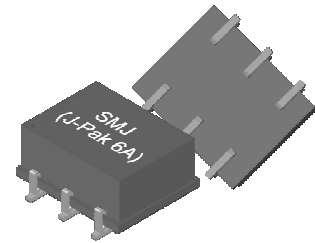
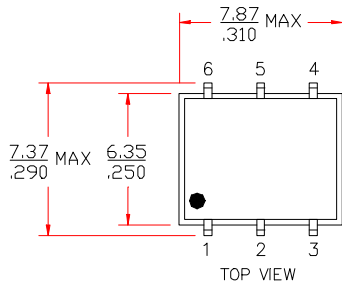
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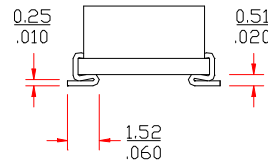
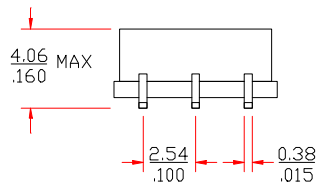
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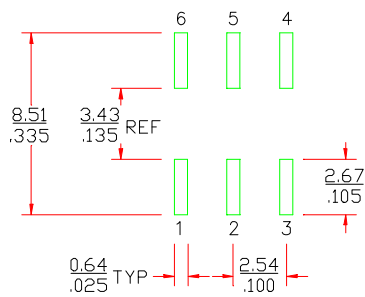
## OUTLINE DRAWING



mm  
inch

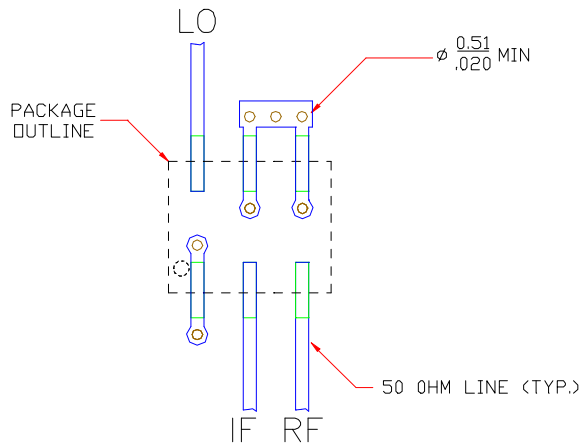


## LAND PATTERN



FUNCTION	PIN NO.
GROUND	1
IF	2
RF	3
GROUND	4-5
LO	6

## MOUNTING CONFIGURATION



- Notes:
1. Ground vias are critical for RF grounding considerations.
  2. If your PCB design rules allow, ground vias should be placed under the land pattern for better RF performance. Otherwise ground vias should be placed as close land pattern as possible.
  3. Trace width depends on PC board.

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