



SMJ 1003-17C

Quad-Diode Mixer

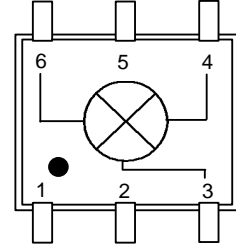
The Communications Edge™

Preliminary Product Information

Product Features

- Input IP3 +26 dBm
- RF Freq 800 - 1000 MHz
- LO Freq 700 - 980 MHz
- IF Freq 20 - 100 MHz
- LO Drive Level +17 dBm

Functional Diagram



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

Specifications

Parameters	Units	Minimum	Typical	Maximum	Comments
RF Frequency	MHz	800		1000	
LO Frequency	MHz	700		980	
IF Frequency	MHz	20		100	
SSB Conversion Loss	dB		7.0		
L-R Isolation	dB		32		
L-I Isolation	dB		40		
IIP3	dBm		+26		
LO Drive	dBm		+17		
RF - Return Loss	dB		11		
LO - Return Loss	dB		13		
IF - Return Loss	dB		18		

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)	+20 dBm

Ordering Information

Part No.	Description
SMJ 1003-17C	Diode Mixer (Available in Tape & Reel)
SMJ 1003-17C-PCB	Fully Assembled Application Circuit

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



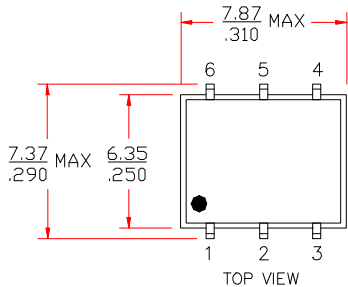
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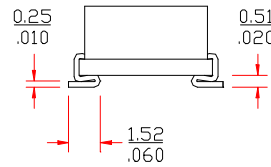
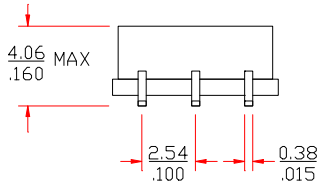
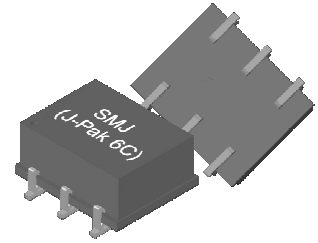
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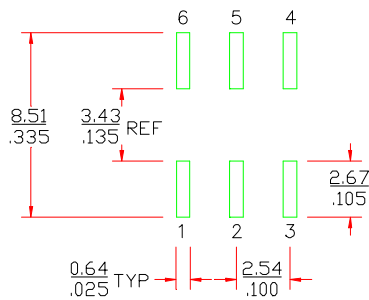
OUTLINE DRAWING



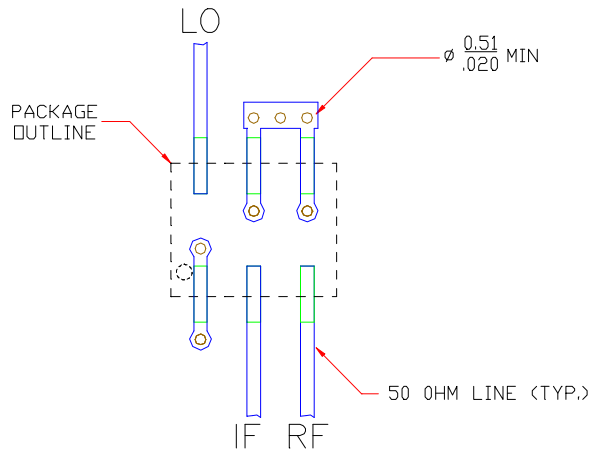
mm
inch



LAND PATTERN



MOUNTING CONFIGURATION



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

- 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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