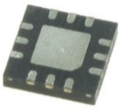
LM0005P
Limiter Diode Package



Key Features :

- Frequency : 0.001GH ~ 3GHz
- Low inseration loss
- High endurance power
- Low cost QFN package

Description :

This product is a limiter diode made by PIN technology, it can be used in passive limiter circuit of RF front end, in frequency range of 10MHz ~ 3GHz.

Absolute Maximum Ratings (Ta = 25°C)

Parameter	Unit	Value	Remark
V_R	V	20	
I_F	mA	100	
CW Input Power	dBm	40	
Operating Temperature	°C	-65 ~ +125°C	
Storage Temperature	°C	-65 ~ +150°C	

[1] Operation outside any of the Absolute Maximum Ratings may cause permanent device damage.

Electrical Characteristics (Ta = 25°C)

Symbol	Parameter	Test Conditions	Value			Unit
			Min	Typical	Max	
R_S	Serial conducting resistance	10mA, 1GHz	-	1.29	-	Ω
C_T	Total capacitance	0V, 1MHz	-	0.11	-	pF
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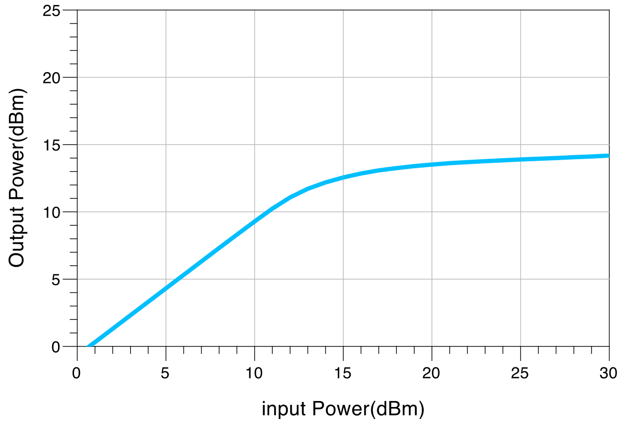
TI	Carrier life	I_F = 10mA	-	4	-	Ns
W_2	I level thickness	-	-	1.2	-	μm
V_B	Reverse breakdown voltage	-	-	37	-	V
V_F	Forward conducting voltage	-	-	0.93	-	V

Typical limiter performance index @ 1GHz

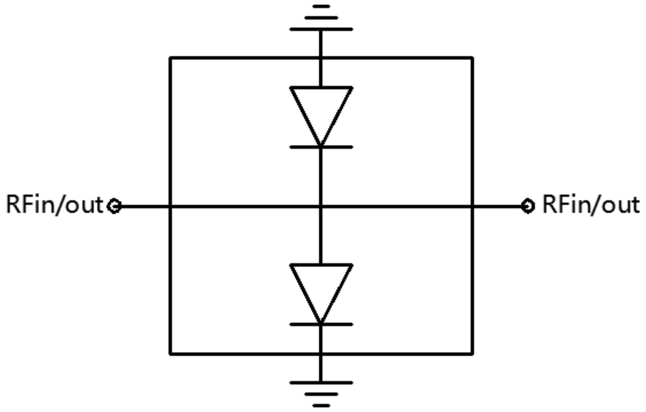
Name	Test Conditions	Value
Connection method		Seriel
Insertion loss	P = -20dBm	0.3dB
IP3	P < 0dBm	30dBm
Power attenuation	P = 20dBm	6
Power attenuation	P = 20dBm	15

Typical Curve

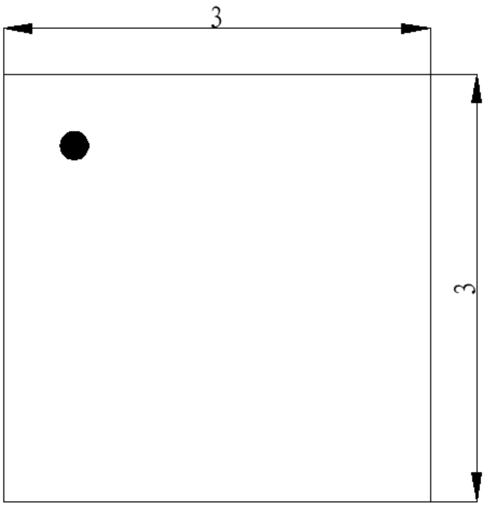
Limiter voltage level curve @ 1GHz



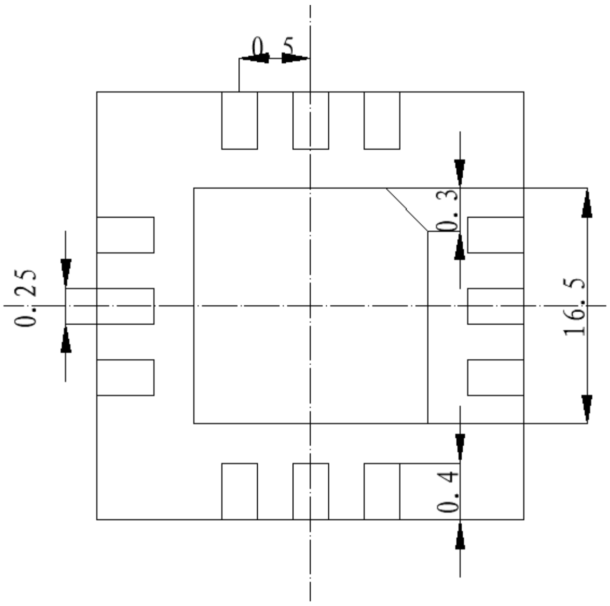
Functional Block



Dimensions (Unit : µm)

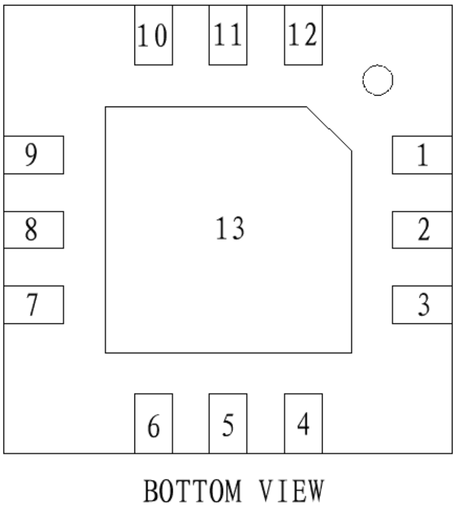


TOP VIEW



BOTTOM VIEW

Lead diagram



Lead	2	8	其他
Use	RFin	RFout	GND