

FEATURES

- High Input P0.1dB: +34 dBm Typ
- Low Insertion Loss: 0.55 dB Typ at 2.4 GHz
- High Isolation: 25 dB Typ at 2.4 GHz
- GaAs PHEMT technology
- Small size and low-cost SC-70 / SOT363 package



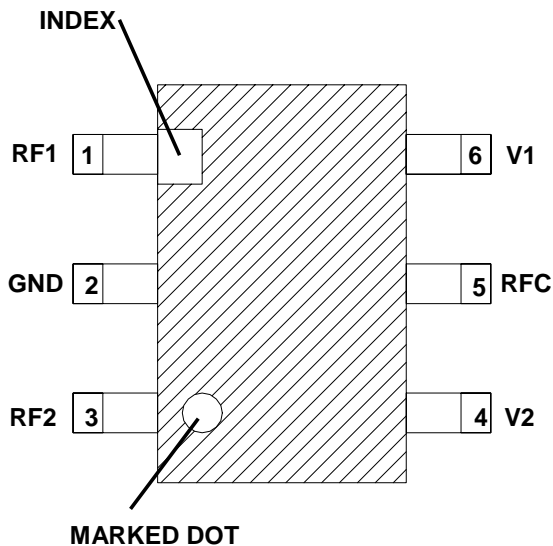
APPLICATIONS

- 802.11b,g Wireless LAN T/R Switching
- WiMAX T/R Switching
- Handset T/R Switching (WCDMA, PHS, etc.)

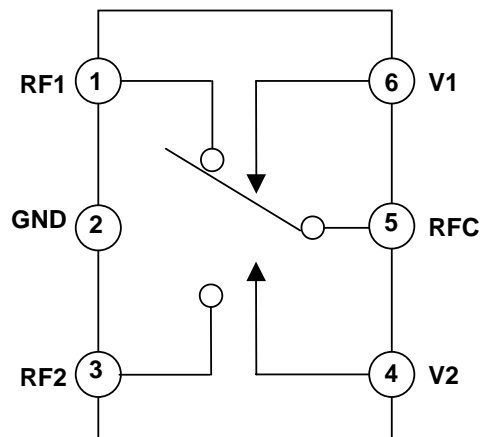
Lead(Pb) Free Package
SC70 (2.0 x 2.1 x 1.0 mm)

DESCRIPTION

The FMM5317ZW is a single-throw double-pole (SP2T) GaAs PHEMT switch designed for transmit/receive switching applications in the 0.5 GHz to 4.0 GHz frequency range. The FMM5317ZW is ideally suited for applications where high linearity, low control voltage, low insertion loss, high isolation, small size, and low cost are required. The device is in a low-cost, miniature 6-pin SOT-363/SC-70 package.



Pin Configuration
(Top View)



Function Block Diagram

ABSOLUTE MAXIMUM RATINGS (Ambient Temperature Ta=25°C)

Parameter	Symbol	Rating	Unit
DC Input Voltage	V1, V2	+6	V
Input Power	Pin	+35	dBm
Storage Temperature	Tstg	-40 to +85	°C
Operating Case Temperature	Top	-40 to +85	°C

ELECTRICAL SPECIFICATIONS (Case Temperature Tc=25°C)

Parameter	Symbol	Condition/comments	Min	Typ	Max	Unit
Frequency range	F		0.5		4.0	GHz
Control Voltage for V1 & V2	Vhigh	High	2.5	2.8	3.6	V
	Vlow	Low	-0.2	0	+0.2	
Control Current (per line)	Icontrol	No RF, V1 or V2 = 2.8 V		15	30	uA
Input P- 0.1dB	P0.1dB	Vhigh=2.8V or Vlow=0V	32.5	34		dBm
Insertion Loss	I.L.	Freq = 0.5 to 2.5 GHz		0.55	0.70	dB
		Freq = 2.5 to 4.0 GHz		0.70		
Isolation	ISO	Freq = 0.5 to 2.5GHz	21	25		dB
		Freq = 2.5 to 4.0GHz		20		
Return Loss	RL	Freq = 0.5 to 2.5 GHz	15	20		dB
		Freq = 2.5 to 4.0GHz		20		
Switching Speed	Ton	50% Vcontrol to 90% RF		110	200	nsec
	Toff	50% Vcontrol to 10% RF		70	150	

(Unless otherwise specified Zsource=Zload=50Ω System, Tc=25°C)

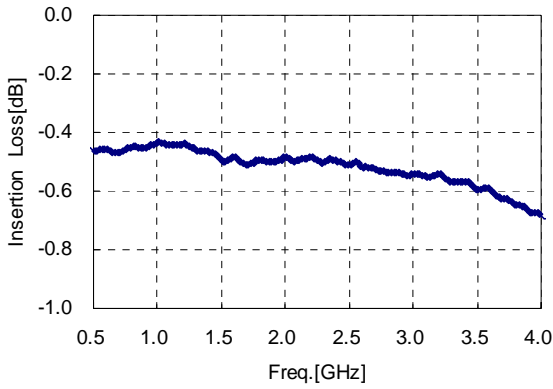
TRUTH TABLE

V1	V2	RF1-RFC	RF2-RFC
LOW	HIGH	OFF	ON
HIGH	LOW	ON	OFF

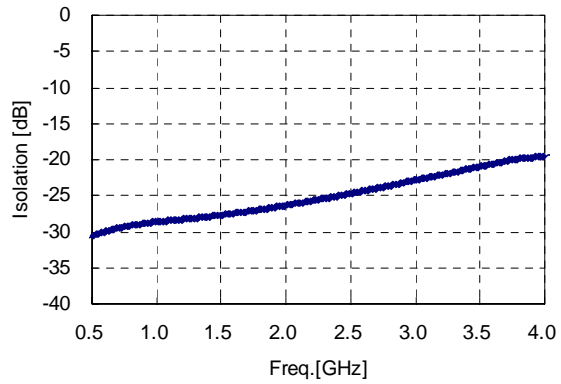
Specifications and pin assignment may be changed without notice.

TYPICAL PERFORMANCE CURVES

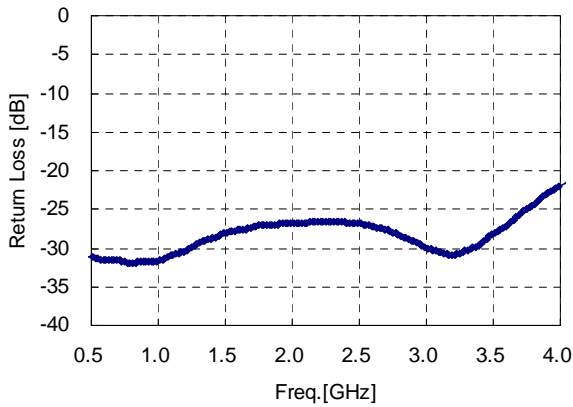
Insertion Loss vs. Frequency



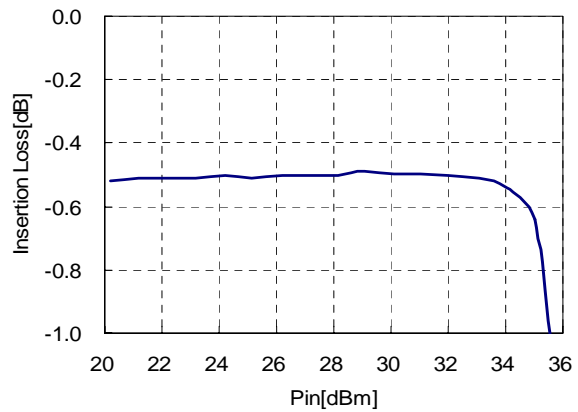
Isolation vs. Frequency



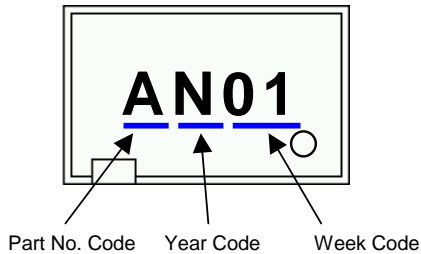
Return Loss vs. Frequency



Insertion Loss vs. Pin

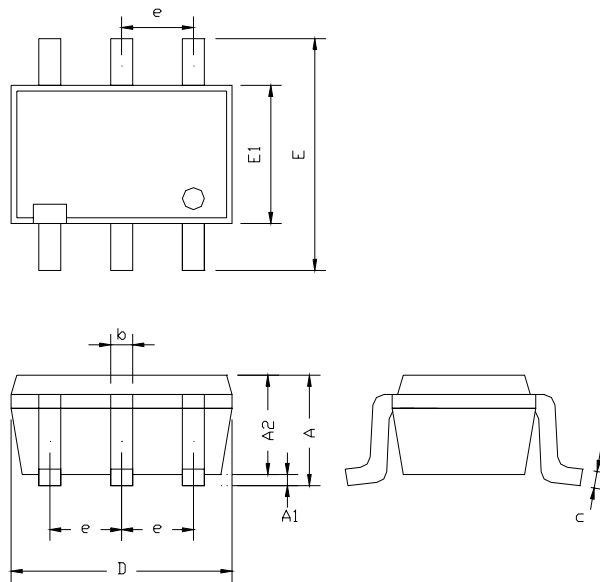


Package Marking



Year Code	N	O	P	R	S	T	U
Year	2006	2007	2008	2009	2010	2011	2012

PACKAGE DIMENSIONS



Dimension Symbol	Measurement (mm)		
	Min	Nom	Max
A	-	-	1.00
A1	0.025	0.075	0.10
A2	0.85	0.88	0.90
b	0.15	-	0.30
c	0.10	-	0.20
D	1.90	2.00	2.10
E	2.10 BSC		
E1	1.25	1.30	1.35
e	0.65 BSC		