Eudyna

Eudyna Devices Inc.

ES/EMM5317ZW

Single Pole Double Throw Switch
### 2.4 GHz Wireless LAN Transmit / Receive Applications

FEATURES

- **High Input P0.1dB: 34 dBm Typ**
- **Low Insertion Loss: 0.45 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**
- **Single supply voltage operation**
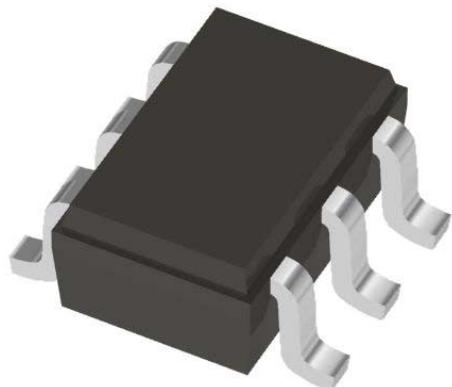
APPLICATIONS

- **802.11b,g Wireless LAN T/R Switching**

2.0 x 2.1 x 1.0 mm

Lead Free Package

DESCRIPTION

ES/EMM5317ZW is a single-throw double-pole (SP2T) GaAs PHEMT switch designed for transmit/receive switching applications in the 0.1 GHz to 3.5 GHz frequency range. The ES/EMM5317ZW 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.
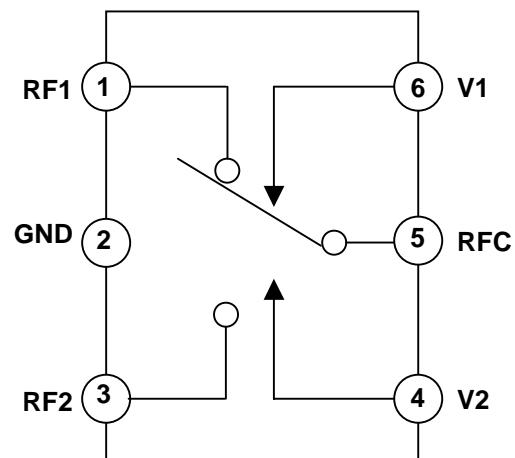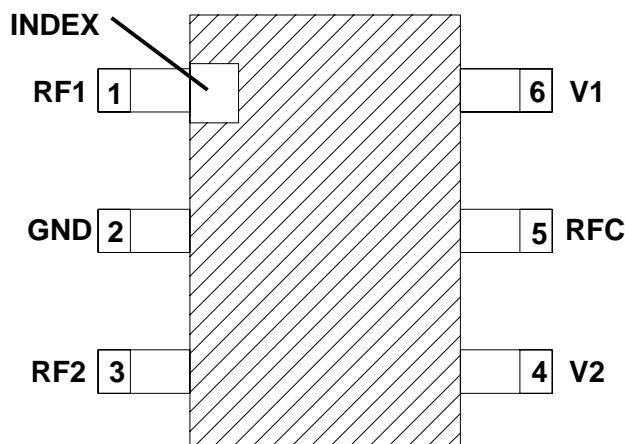
Pin Configuration
(Top View)

Function Block Diagram

TARGET SPECIFICATIONS

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

Parameter	Symbol	Rating	Unit
DC Input Voltage	V1, V2	+6	V
Input Power	Pin	+34	dBm
Storage Temperature	Tstg	-40 to +85	°C
Operating Case Temperature	Top	-40 to +85	°C

ELECTRICAL SPECIFICATIONS (Case Temperature Tc=25°C, with off chip DC blocks)

Parameter	Symbol	Condition/comments	Min	Typ	Max	Unit
Frequency range	F		0.1		3.5	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		uA
Input P- 0.1dB	P0.1dB	Vhigh=2.8V or Vlow=0V		34		dBm
Insertion Loss	I.L.	Freq = 0.5 to 2.5 GHz		0.45		dB
Isolation	ISO	Freq = 0.5 to 2.5GHz		25		dB
Return Loss	RL	Freq = 0.5 to 2.5 GHz		25		dB

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

TRUTH TABLE

V1	V2	RF1-RFC	RF2-RFC
High	Low	ON	OFF
Low	High	OFF	ON

Specifications and pin assignment may be changed without notice.

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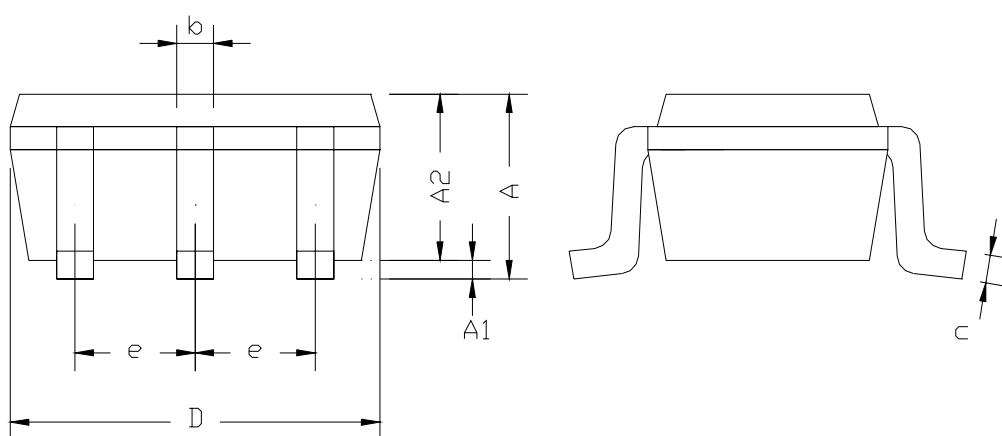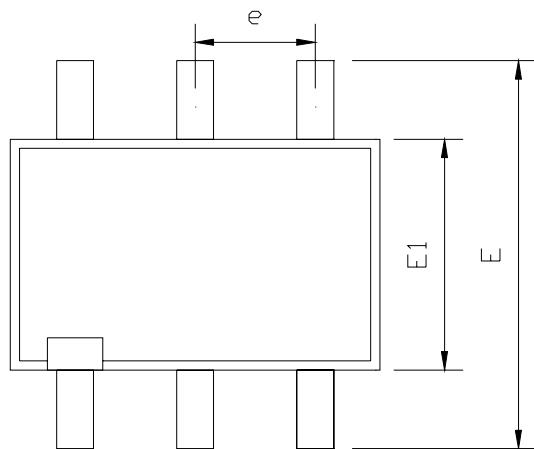
Dimension	Measurement (mm)		
Symbol	Min	Nom	Max
A	-	-	1.00
A1	0.025	0.075	0.10
A2	0.85	0.88	0.90
b	0.15	-	0.30
c	0.10	-	0.20
D	1.90	2.00	2.10
E	2.10 BSC		
E1	1.25	1.30	1.35
e	0.65 BSC		