

FEATURES

- Small size and low-cost SC-70 / SOT363 package
- High Input P0.1dB: 29 dBm
- Low Insertion Loss: 0.6 dB at 6 GHz
- High Isolation: 18 dB Typ. at 6 GHz
- GaAs PHEMT technology
- Single supply voltage operation



APPLICATIONS

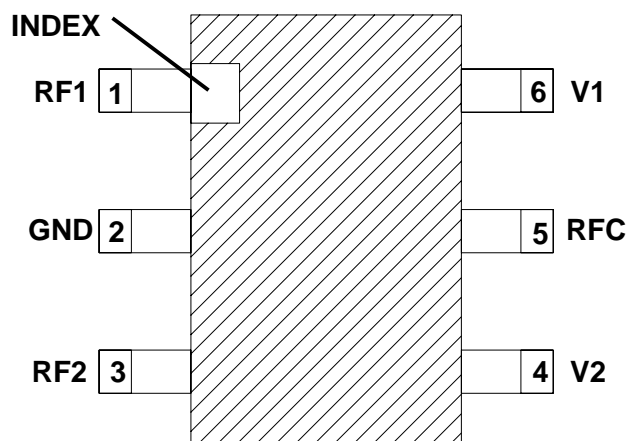
- 802.11a,b,g Wireless LAN T/R switching

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

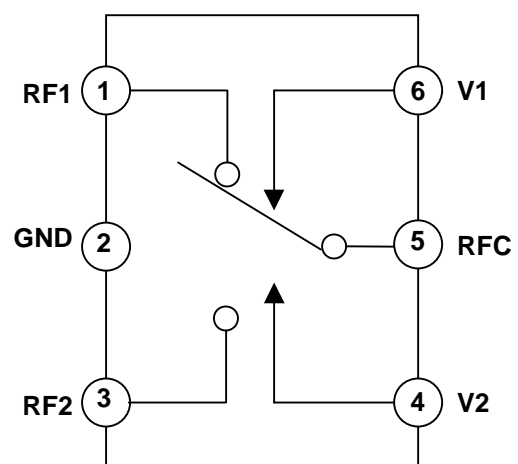
DESCRIPTION

ES/EMM5328ZW is a single-pole double-throw (SP2T) GaAs PHEMT switch designed for WLAN transmit / receive switching applications in the entire 802.11a,b,g frequency ranges.

ES/EMM5328ZW 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 $T_a=25^{\circ}\text{C}$)

Parameter	Symbol	Rating	Unit
DC Input Voltage	V1, V2	+6	V
Input Power	Pin	+31	dBm
Storage Temperature	Tstg	-40 to +85	$^{\circ}\text{C}$
Operating Case Temperature	Top	-40 to +85	$^{\circ}\text{C}$

ELECTRICAL SPECIFICATIONS (Case Temperature $T_c=25^{\circ}\text{C}$, with off chip DC blocks)

Parameter	Symbol	Condition/comments	Min	Typ	Max	Unit
Frequency range	F		0.1		6.0	GHz
Control Voltage for V1, V2	Vhigh	High	2.5	3.0	3.6	V
	Vlow	Low	-0.2	0	+0.2	V
Control Current (per line)	Icontrol	No RF, V1 or V2 = 3.0 V		15	50	μA
Input P- 0.1dB	P0.1dB	Vhigh= 3.0V, Vlow= 0V		29		dBm
Insertion Loss	I.L.	Freq = 0.5 - 2.5 GHz		0.5		dB
		Freq = 5.0 - 6.0 GHz		0.6		dB
Isolation	ISO	Freq = 0.5 - 2.5 GHz		19		dB
		Freq = 5.0 - 6.0 GHz		18		dB
Return Loss	RL	Freq = 0.5 - 2.5 GHz		20		dB
		Freq = 5.0 - 6.0 GHz		20		dB

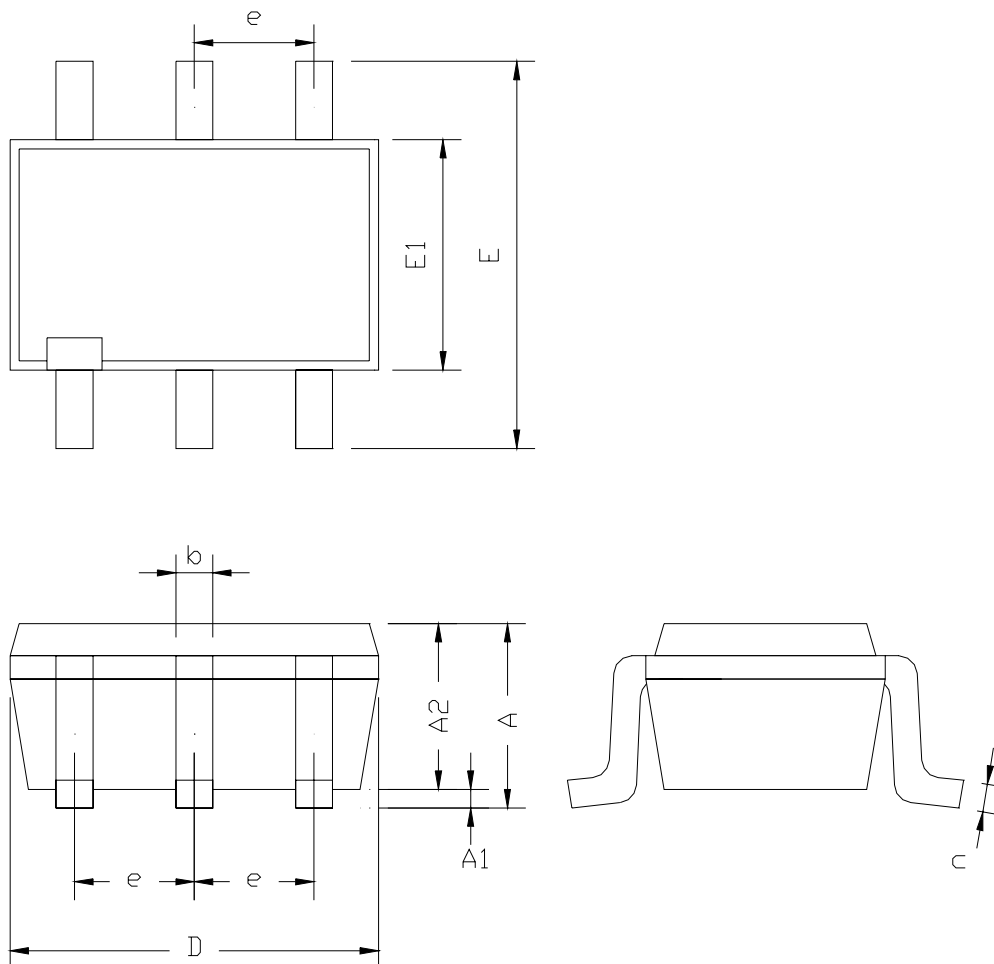
(Unless otherwise specified $Z_{\text{source}}=Z_{\text{load}}=50\Omega$ System, $T_c=25^{\circ}\text{C}$)

TRUTH TABLE

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

Specifications and pin assignment may change without notice.

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		