



SANYO Semiconductors

DATA SHEET

An ON Semiconductor Company

VS105E2 — ESD Protection Device for High-speed signal Line (typ. 0.3pF)

Features

- Low capacitance (0.3pF) & high ESD immunity (18kV@IEC61000-4-2 contact discharge)
- Bidirectional characteristic Best suited for antenna (One Seg / GPS / FM) ESD protection
- Small package 1.0 × 0.6 × 0.55 mm (ECSP1006-2-055)
- Halogen free compliance (UL94 HB)

Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	V_R		6	V
Junction Temperature	T_j		150	°C
Storage Temperature	T_{stg}		-55 to +150	°C

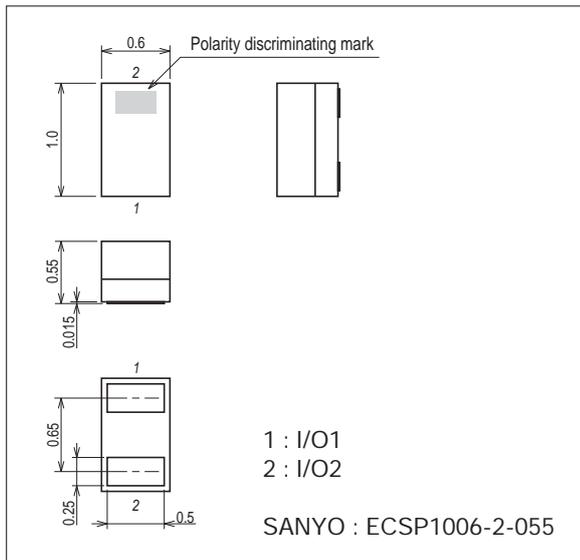
Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=1mA$	6		11	V
Reverse Current	I_R	$V_R=5V$			1	μA
Interterminal Capacitance	C	$V_{IN}=0V, f=1MHz (I/O1-I/O2)$		0.3		pF
ESD Discharge	V_{ESD}	$C=150pF, R=330\Omega, \text{contact discharge (IEC61000-4-2)}$	18			kV
Peak Voltage	V_{p-p}	Contact discharge when 8kV is applied		135		V

Package Dimensions

unit : mm (typ)

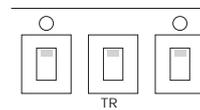
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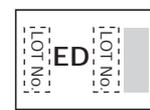
Product & Package Information

- Package : ECSP1006-2-055
- JEITA, JEDEC : -
- Minimum Packing Quantity : 8,000 pcs./reel

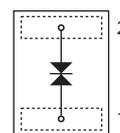
Packing Type: TR



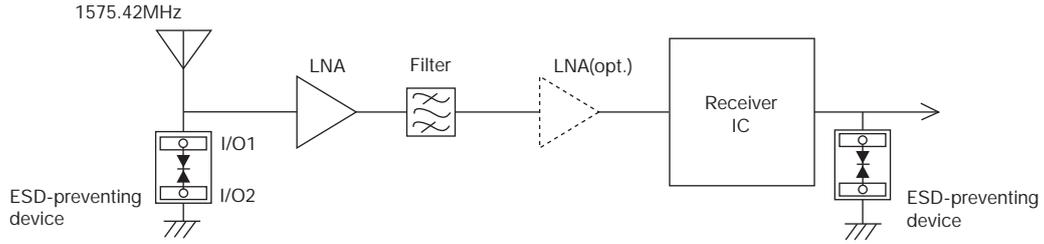
Marking



Electrical Connection



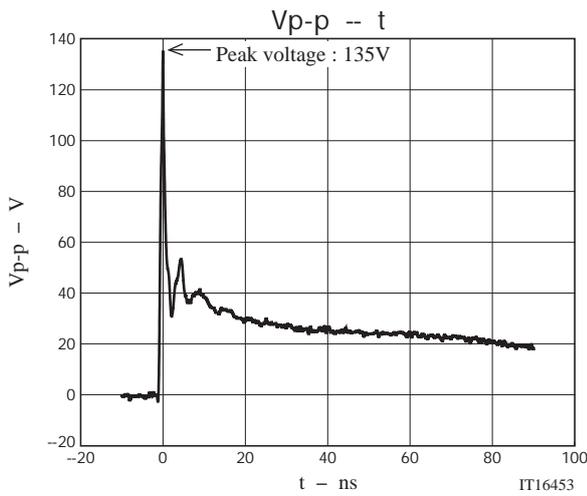
Usage



Either I/O1 or I/O2 can be connected to GND (the same performance)

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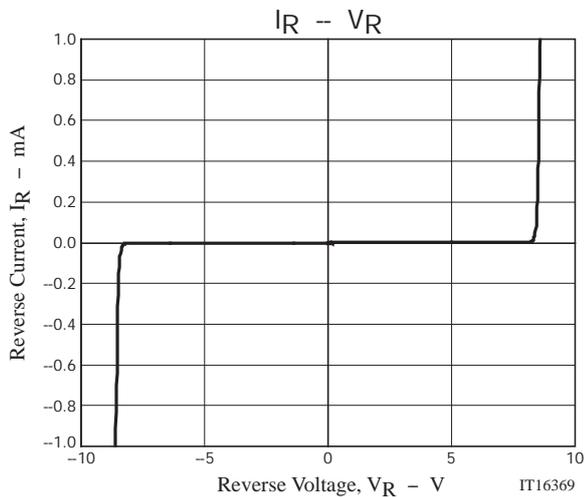
Absorption Waveform



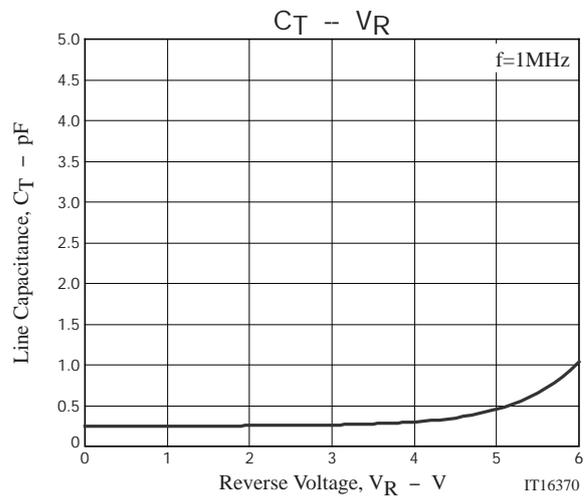
* The effect is the same when -8kV is applied

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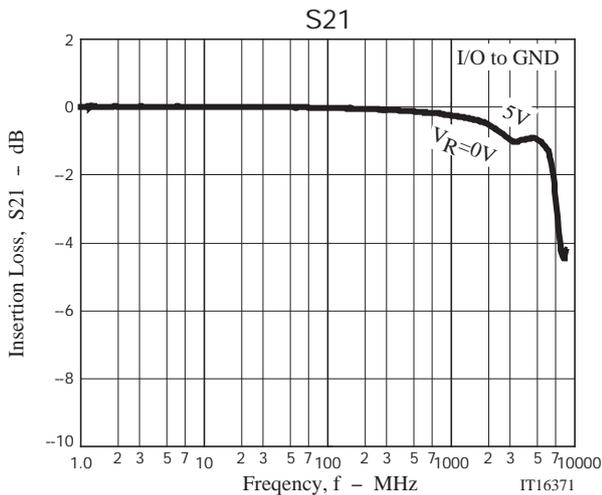
IEC61000-4-2 Contact Discharge, when 8kV is applied



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