



### 30–38 GHz waveguide double-channel *p-i-n*-switch (SPDT) for high power level



#### **APPLICATION**

The double-channel switch (SPDT), **M342003**, is intended for use in on-board equipment in frequency range  $F_0 = 30\text{--}38$  GHz.

In a band of operating frequencies ( $F_0 \pm 0.5$  GHz) the switch provides insertion loss no more than 2.5 dB and isolation level between channels not less than 20 dB.

#### **DESCRIPTION**

Special silicon packaged *p-i-n*-diodes of RI "Orion" production are used in the switch. The thickness of *i*-layer is some tens of microns that on the one hand results in channel switching rate not worse than 10  $\mu\text{sec}$ , and on the other hand it provides pulse power handling of an order 2 kW.

The double-channel microwave switch is completed with a control device (driver) with one control input to which through SMA-connector is supplied TTL-level signal. Logic «0» or logic «1» there will match connection of one or other channel of the switch. Driver is supplied by two voltage power supplies +5 V and -40 V.



### SPECIFICATIONS

Central operating frequency, $F_0$ , * GHz	30–38
Band of operating frequencies, GHz	$F_0 \pm 0.5$
Direct loss in a band of operating frequencies, dB, no more	2.5
Isolation in a band of operating frequencies, dB, not less	20
Switching time, $\mu\text{sec}$ , no more	1.0
Maximum input pulse microwave power, kW	2.0
Type of connecting waveguide flange	UG-599/U

\*  $F_0$  value is specified by a customer.

### OUTLINE DRAWING

