

ANTENNA SWITCH

MI301

PIN DIODE

RF POWER SWITCHING

DESCRIPTION

The MI301 PIN diode is employing high reliability glass construction, designed for solid state antenna switches in commercial two-way radios.

FEATURES

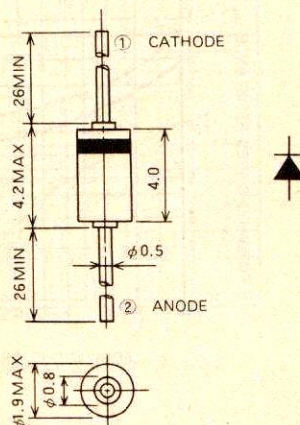
- Low insertion loss
- High isolation
- Small glass construction

APPLICATION

Antenna switching

OUTLINE DRAWING

Dimension: mm



ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

Symbol	Parameter	Ratings	Unit
V_{RM}	Repetitive peak reverse voltage	80	V
I_{FSM} *	Forward surge current	2.0	A
P	Power dissipation	350	mW
T_j	Junction temperature	175	$^\circ\text{C}$
T_{stg}	Storage temperature	-55 to 175	$^\circ\text{C}$

* : $t=1\text{sec}$

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
I_R	Reverse current	$V_R=60\text{V}$			150	nA
$V_{(BR)R}$	Reverse break-down voltage	$I_R=10\mu\text{A}$	80			V
I_F	Forward current	$V_F=1.0\text{V}$	100			mA
C_t	Diode capacitance	$V_R=0\text{V}$, $f=1\text{MHz}$			3.0	pF
r_{fs}	Forward series resistance	$I_F=20\text{mA}$, $f=470\text{MHz}$			1.2	Ω
Q	Q	$V_R=0\text{V}$, $f=50\text{MHz}$	20			—
L_s	Lead inductance	Total lead length 10mm		2.5		nH

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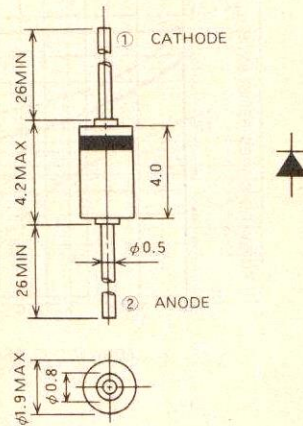
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Q	Q	$V_R = 0V, f = 50MHz$	20			—
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