

Band-switching diode

FEATURES

- Small plastic SMD package
- Continuous reverse voltage: max. 35 V
- Continuous forward current: max. 100 mA
- Low diode capacitance: max. 1.2 pF
- Low diode forward resistance: max. 0.7 Ω .

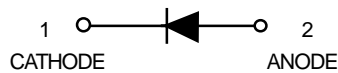
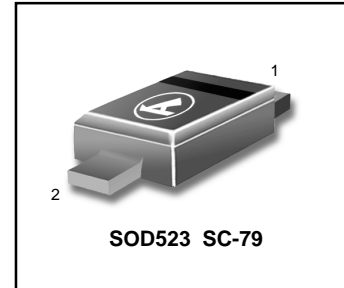
APPLICATIONS

- Low loss band switching in VHF television tuners.
- Surface mount band-switching circuits.

DESCRIPTION

Planar high performance band-switching diode in a small plastic SOD523 (SC-79) SMD package.

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LIMITING VALUES In accordance with the Absolute Maximum Rating System (IEC 134).

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V_R	continuous reverse voltage		–	35	V
I_F	continuous forward current		–	100	mA
P_{tot}	total power dissipation	$T_s = 90^\circ\text{C}$	–	715	mW
T_{stg}	storage temperature		-65	+150	$^\circ\text{C}$
T_j	junction temperature		-65	+150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS $T_j = 25^\circ\text{C}$ unless otherwise specified.

SYMBOL	PARAMETER	CONDITIONS	MAX.	UNIT
V_F	forward voltage	$I_F = 10\text{ mA}$	1	V
I_R	reverse current	$V_R = 25\text{ V}$	50	nA
		$V_R = 20\text{ V}; T_{amb} = 75^\circ\text{C}$	1	μA
C_d	diode capacitance	$f = 1\text{ MHz}; V_R = 6\text{ V}; \text{note 1; see Fig.1}$	1.2	pF
r_D	diode forward resistance	$I_F = 2\text{ mA}; f = 100\text{ MHz}; \text{note 1; see Fig.2}$	0.7	Ω

Note

1. Guaranteed on AQL basis: inspection level S4, AQL 1.0.

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-s}$	thermal resistance from junction to soldering-point	85	K/W

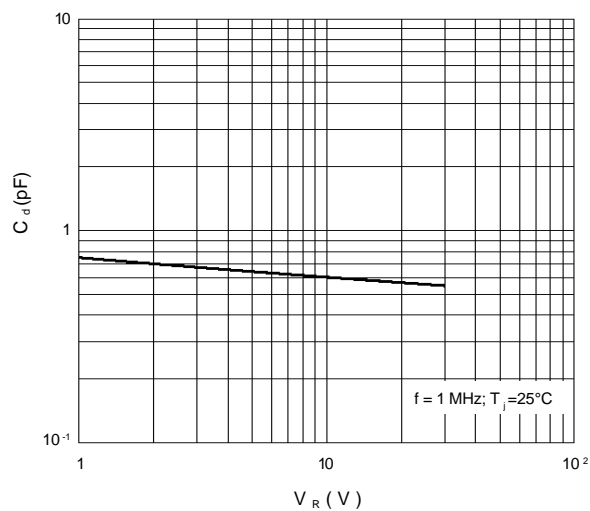
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Fig.1 Diode capacitance as a function of reverse voltage; typical values.

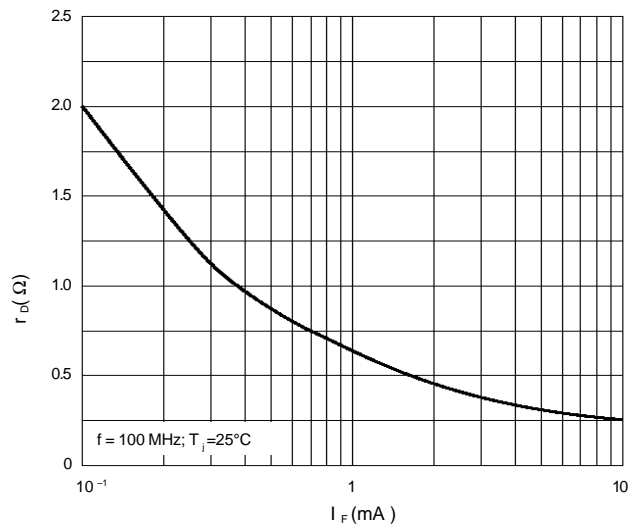


Fig.2 Diode forward resistance as a function of forward current; typical values.