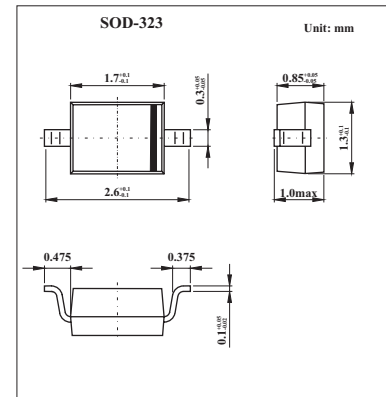


Band-switching diode

BA591

■ Features

- Very small plastic SMD package
- Low diode capacitance: max. 1.05 pF
- Low diode forward resistance: max. 0.7 Ω
- Small inductance.

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Max	Unit
Continuous reverse voltage	V_R			30	V
Continuous forward current	I_F			100	mA
Total power dissipation	P_{tot}	$T_s = 90^\circ\text{C}$		500	mW
Storage temperature	T_{stg}		-65	+150	$^\circ\text{C}$
Junction temperature	T_j		-65	+150	$^\circ\text{C}$
thermal resistance from junction to soldering point	$R_{th\ j-s}$			120	K/W

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Typ	Max	Unit
Forward voltage	V_F	$I_F = 10\text{ mA}$		1	V
Reverse current	I_R	$V_R = 20\text{ V}$		20	nA
Diode capacitance	C_d	$f = 1\text{ MHz}$; note 1			
		$V_R = 1\text{ V}$	0.8	1.05	pF
		$V_R = 3\text{ V}$	0.65	0.9	pF
Diode forward resistance	r_D	$f = 100\text{ MHz}$; note 1			
		$I_F = 3\text{ mA}$	0.45	0.7	Ω
		$I_F = 10\text{ mA}$	0.36	0.5	Ω
Reverse resistance	$1/g_p$	$V_R = 1\text{ V}$; $f = 100\text{ MHz}$	100		K Ω
Series inductance	L_s		2		nH

Note

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

■ Marking

Marking	A1
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