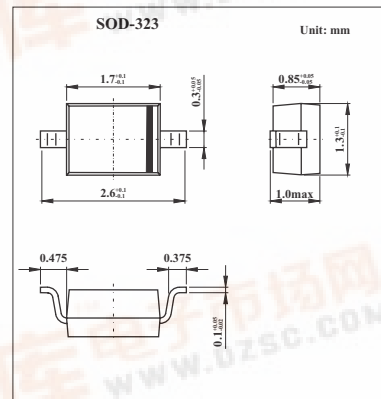


SMD Type Diodes

General purpose PIN diode  
BAP51-03

Features

- Low diode capacitance
- Low diode forward resistance.



Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Min	Max	Unit
continuous reverse voltage	V <sub>R</sub>		50	V
continuous forward current	I <sub>F</sub>		50	mA
total power dissipation Ts = 90°C	P <sub>tot</sub>		500	mW
storage temperature	T <sub>stg</sub>	-65	+150	°C
junction temperature	T <sub>j</sub>	-65	+150	°C
thermal resistance from junction to soldering point	R <sub>th j-s</sub>		120	K/W

Electrical Characteristics Ta = 25°C

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
forward voltage	V <sub>F</sub>	I <sub>F</sub> = 50 mA		0.95	1.1	V
reverse voltage	V <sub>R</sub>	I <sub>R</sub> = 10 μA	50			V
reverse current	I <sub>R</sub>	V <sub>R</sub> = 50 V			100	nA
diode capacitance	C <sub>d</sub>	V <sub>R</sub> = 0; f = 1 MHz		0.4		pF
		V <sub>R</sub> = 1V; f = 1 MHz		0.3	0.55	
		V <sub>R</sub> = 5V; f = 1 MHz		0.2	0.35	
diode forward resistance	r <sub>D</sub>	I <sub>F</sub> = 0.5 mA; f = 100 MHz; note 1		5.5	40	Ω
		I <sub>F</sub> = 1 mA; f = 100 MHz; note 1		3.6	25	
		I <sub>F</sub> = 10 mA; f = 100 MHz; note 1		1.5	5	
charge carrier life time	τ <sub>L</sub>	when switched from I <sub>F</sub> = 10 mA to I <sub>R</sub> = 6 mA; R <sub>L</sub> = 100 Ω; measured at I <sub>R</sub> = 3 mA		550		ns

Note

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

Marking

Marking	A5
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