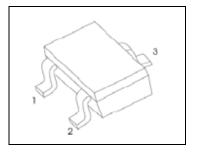


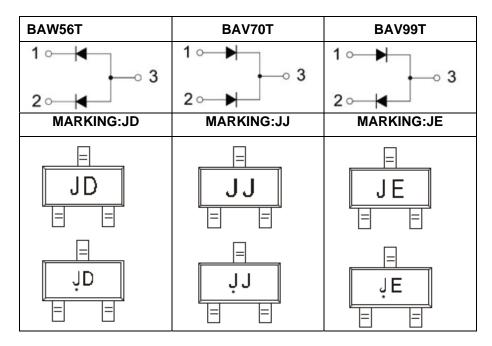
**Green Products** 

# **BAW56T/BAV70T/BAV99T SWITCHING DIODE**

### Features:

- Low Forward Voltage Drop
- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection





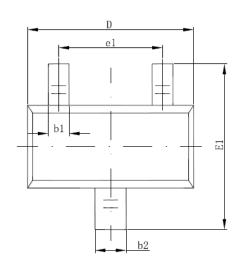
Solid dot = Green molding compound device, if none, the normal device.

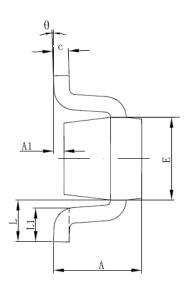
<sup>•</sup> http://www.smc-diodes.com - sales@ smc-diodes.com •

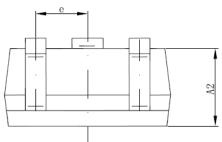


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## **Mechanical Dimensions: In mm/Inches**







Symbol	Dimensions	In Millimeters	Dimensions In Inches		
	Min.	Max.	Min.	Max.	
Α	0.700	0.900	0.028	0.035	
A1	0.000	0.100	0.000	0.004	
A2	0.700	0.800	0.028	0.031	
b1	0.150	0.250	0.006	0.010	
b2	0.250	0.350	0.010	0.014	
С	0.100	0.200	0.004	0.008	
D	1.500	1.700	0.059	0.067	
E	0.700	0.900	0.028	0.035	
E1	1.450	1.750	0.057	0.069	
е	0.500 TYP.		0.020 TYP.		
e1	0.900	1.100	0.035	0.043	
L	0.400	REF.	0.016 REF.		
L1	0.260	0.460	0.010	0.018	
θ	0°	8°	0°	8°	

**SOT-523** 

- China Germany Korea Singapore United States
  - http://www.smc-diodes.com sales@ smc-diodes.com •



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# **Ordering Information:**

Device	Package	Shipping
BAW56T/BAV70T/BAV99T	SOT-523(Pb-Free)	3000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

Maximum Ratings @T<sub>A</sub>=25°C unless otherwise specified

Parameter	Symbol	Limit	Unit
Reverse Voltage	$V_R$	85	V
Forward Current	I <sub>F</sub>	75	mA
Non-repetitive Peak Forward Surge Current @t=8.3ms	I <sub>FSM</sub>	2.0	Α
Power Dissipation	$P_{D}$	150	mW
Thermal Resistance from Junction to Ambient	$R_{\Theta JA}$	833	°C/ W
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	$T_{stg}$	-55~+150	°C

Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

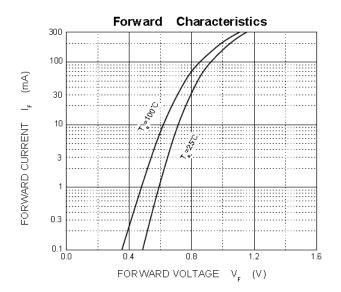
Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	I <sub>R</sub> =1µA	85	-	V
Reverse voltage leakage current	I <sub>R1</sub>	V <sub>R</sub> =75V	-	2	μA
	I <sub>R2</sub>	V <sub>R</sub> =25V	-	0.03	μA
Forward voltage	V <sub>F</sub>	I <sub>F</sub> =1mA	-	715	mV
		I <sub>F</sub> =10mA	-	855	
		I <sub>F</sub> =50mA	-	1000	
		I <sub>F</sub> =150mA	-	1250	
Diode capacitance	C <sub>D</sub>	V <sub>R</sub> =0V,f=1MHz	-	1.5	pF
Reverse recovery time	T <sub>rr</sub>	$I_F = I_R = 10 \text{mA}, \text{Irr} = 0.1 \times I_R,$ $R_L = 100 \Omega$	-	4	ns

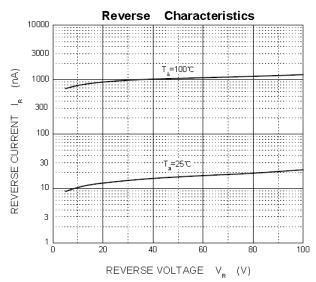
<sup>•</sup> China - Germany - Korea - Singapore - United States •

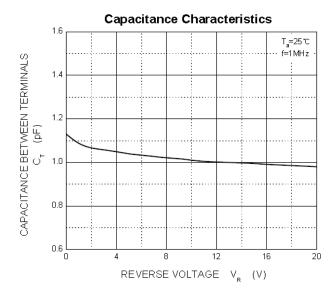
<sup>•</sup> http://www.smc-diodes.com - sales@ smc-diodes.com •

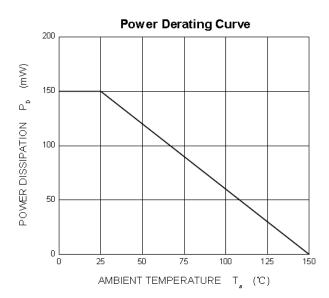


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