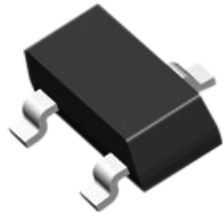
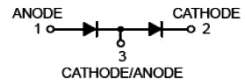


Surface Mount Fast Switching Diode



Features:

- Ultra-Small Surface Mount Package
- Fast Switching Speed
- For General Purpose Switching Applications
- High Conductance
- Also Available in Lead Free Version



SOT-523

Max. Rating @ T_A = 25°C unless otherwise specified

Parameter	Symbol	Limits	Unit
Peak repetitive reverse voltage	V _{RRM}	85	V
Working peak reverse voltage	V _{RMS}	85	V
DC blocking voltage	V _R	85	V
RMS reverse voltage	V _{R(RMS)}	60	V
Forward continuous current (Max.)	I _{FM}	155	mA
Single diode loaded Both diodes loaded		75	
Repetitive peak forward current	I _{FRM}	500	mA
Non-repetitive peak forward surge current	I _{FSM}	4	A
@t = 1μs		1	
@t = 1ms		0.5	
@t = 1s			
Power dissipation	P _D	150	mW
Thermal resistance junction to ambient	R _{θJA}	833	°C/W
Junction and storage temperature	T _j , T _{STG}	-65 to +150	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Parameter	Symbol	Conditions	Min.	Max.	Unit
Reverse breakdown voltage	V _{(BR)R}	I _R = 100μA	85	-	V
Leakage current	I _R	V _R = 25V	-	30	nA
		V _R = 75V		2	μA
		V _R = 25V, T _j = 150°C		60	μA
		V _R = 75V, T _j = 150°C		100	μA
Forward voltage	V _F	I _F = 1mA	-	0.715	V
		I _F = 10mA		0.855	
		I _F = 50mA		1	
		I _F = 150mA		1.25	
Typical total capacitance	C _T	V _R = 0V, f = 1MHz	-	1.75	pF
Reverse recovery time	t _{rr}	I _F = I _R = 10mA, I _{rr} = 0.1 × I _R , R _L = 100Ω	-	4	ns

Surface Mount Fast Switching Diode



Typical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

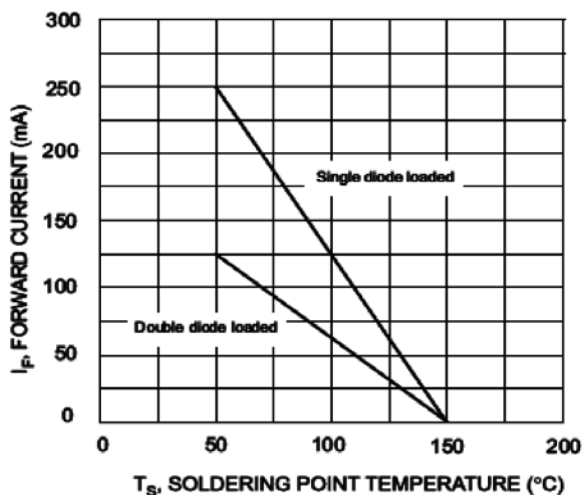


Fig. 1 Current Derating Curve

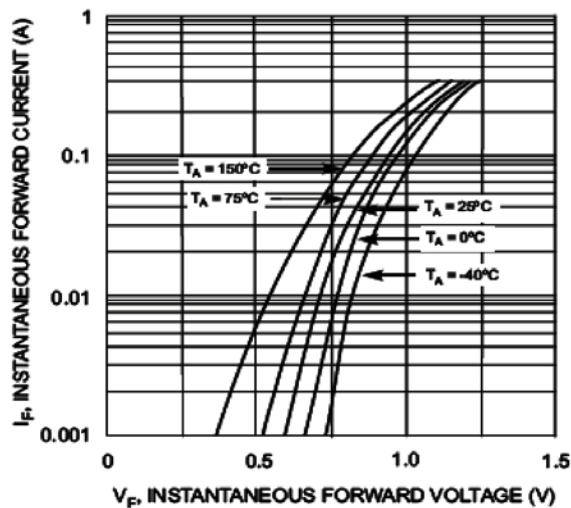


Fig. 2 Forward Characteristics

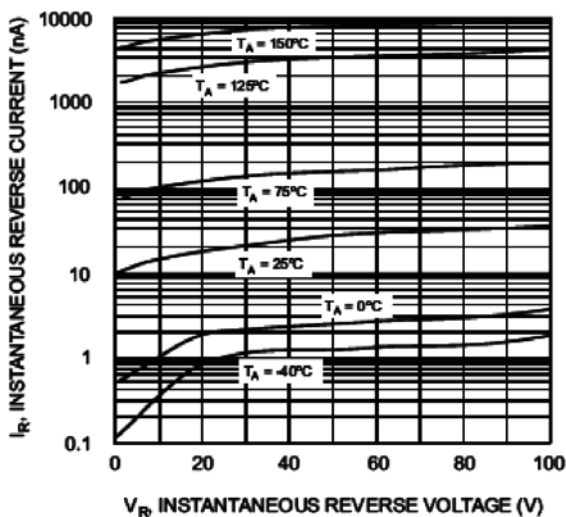


Fig. 3 Typical Reverse Characteristics

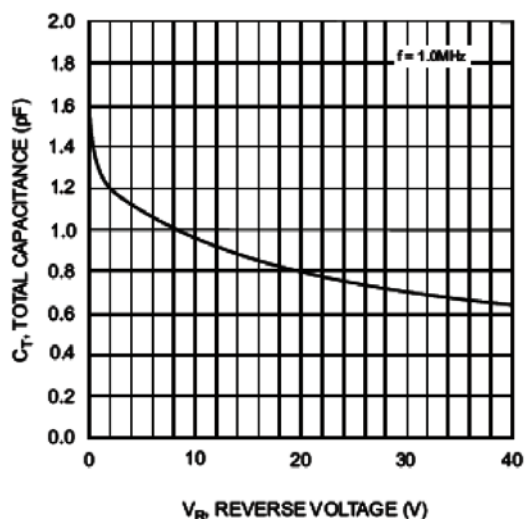
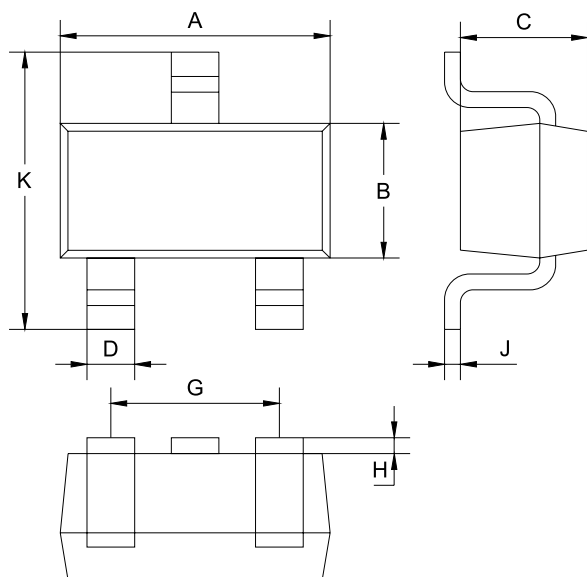


Fig. 4 Typical Capacitance vs. Reverse Voltage

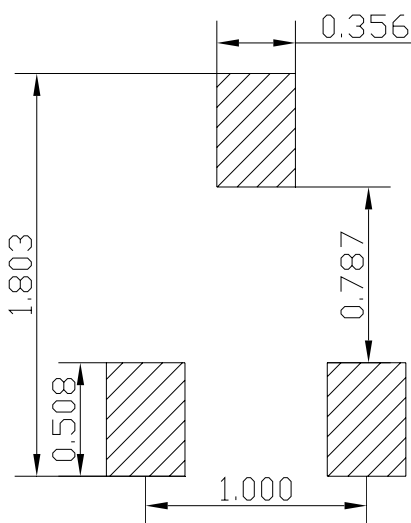
Surface Mount Fast Switching Diode



Plastic surface mounted package



SOT-523		
Dim	Min	Max
A	1.5	1.7
B	0.75	0.85
C	0.6	0.8
D	0.15	0.3
G	0.9	1.1
H	0.02	0.1
J	0.1 Typical	
K	1.45	1.75
All Dimensions in mm		



Unit : mm

Package Information

Device	Package	Shipping
BAV99T-7-F	SOT-523	3,000 / Tape & Reel

Part Number Table

Description	Part Number
Surface Mount Fast Switching Diode	BAV99T-7-F

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