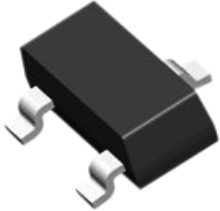


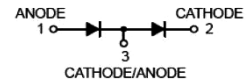
Surface Mount Fast Switching Diode

multicomp **PRO**



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 @ TA = 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	$R_{\theta JA}$	833	°C/W
Junction and storage temperature	T_j, T_{STG}	-65 to +150	°C

Electrical Characteristics @ TA = 25°C unless otherwise specified

Parameter	Symbol	Conditions	Min.	Max.	Unit
Reverse breakdown voltage	$V_{(BR)R}$	$I_R = 100\mu A$	85	-	V
Leakage current	I_R	$V_R = 25V$	-	30	nA
		$V_R = 75V$	-	2	μA
		$V_R = 25V, T_j = 150^\circ C$	-	60	μA
		$V_R = 75V, T_j = 150^\circ C$	-	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}	$I_F = I_R = 10mA,$ $I_{rr} = 0.1 \times I_R, R_L = 100\Omega$	-	4	ns

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Farnell.com/multicomp-pro
Element14.com/multicomp-pro

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Surface Mount Fast Switching Diode

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

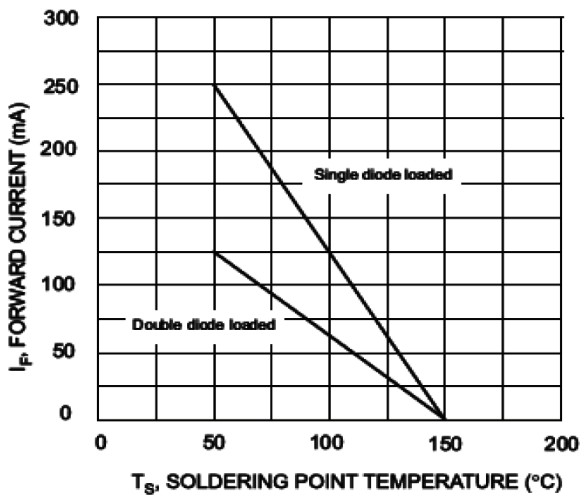


Fig. 1 Current Derating Curve

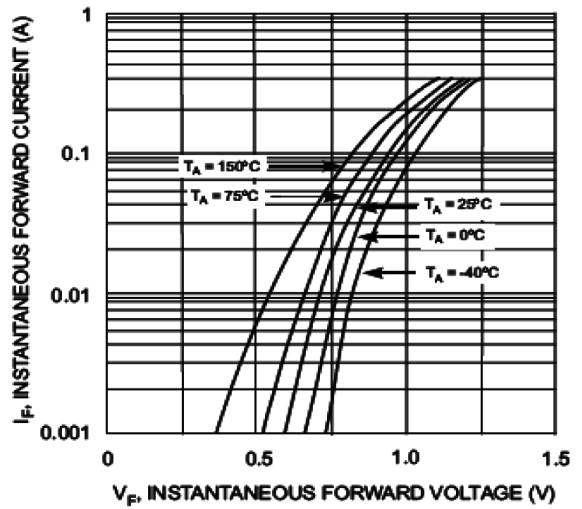


Fig. 2 Forward Characteristics

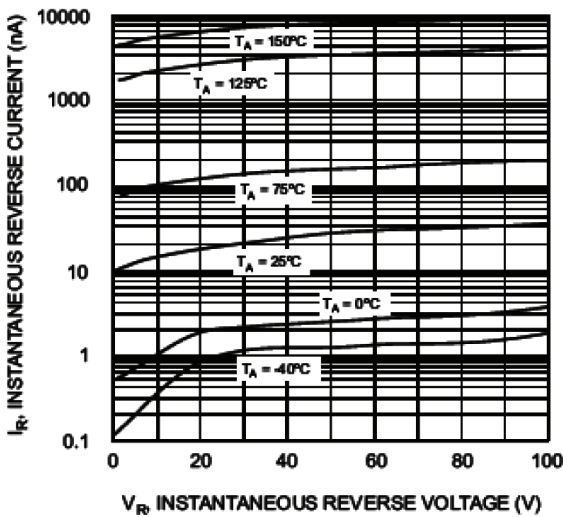


Fig. 3 Typical Reverse Characteristics

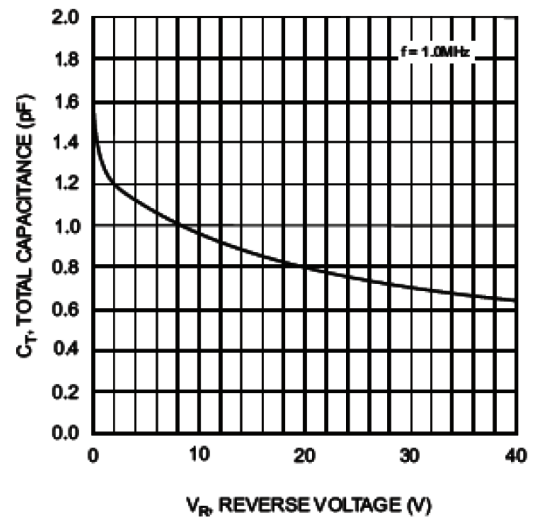


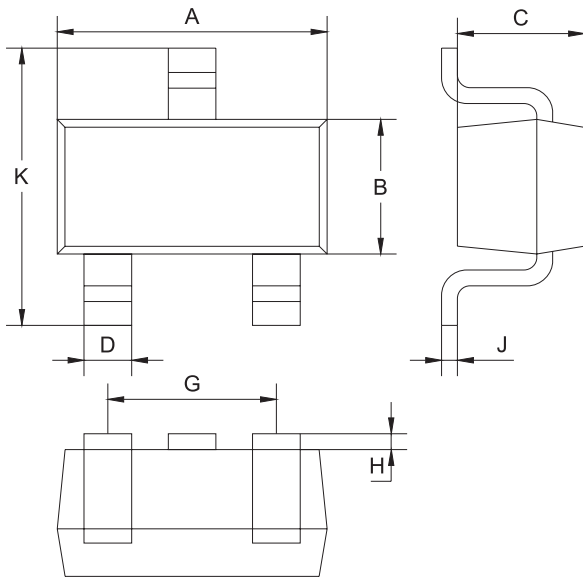
Fig. 4 Typical Capacitance vs. Reverse Voltage

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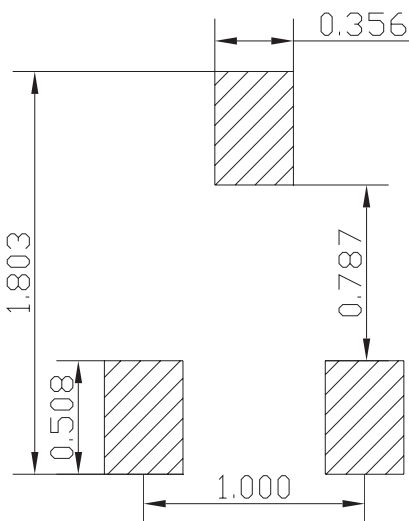
Surface Mount Fast Switching Diode

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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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