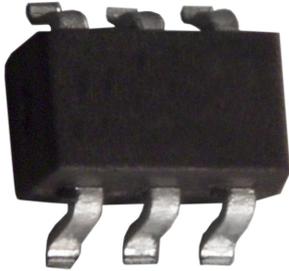


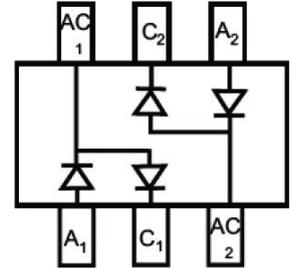
# Surface Mount Fast Switching Diode

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## Features:

- Fast Switching Speed
- For General Purpose Switching Application
- Ultra-Small Surface Mount Package
- High Conductance
- Two “BAV99” Circuits in One Package



**SOT-363**

## Applications:

For general purpose switching application

## Max. Rating @ TA = 25°C unless otherwise specified

Parameter	Symbol	Limits	Unit
Non-repetitive peak reverse voltage	$V_{RM}$	100	V
Peak repetitive reverse voltage	$V_{RRM}$	75	V
Working peak reverse voltage	$V_{RMS}$		
DC reverse voltage	$V_R$		
RMS reverse voltage	$V_{R(RMS)}$	53	V
Forward continuous current	$I_{FM}$	215	mA
Non-repetitive peak forward surge current			A
	@t = 1μs	2	
	@t = 1ms	1	
	@t = 1s	0.5	
Power dissipation	$P_D$	200	mW
Thermal resistance, junction to ambient	$R_{\theta JA}$	625	°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	$V_{(BR)R}$	$I_R = 2.5\mu A$	75	-	V
Forward voltage	$V_F$	$I_F = 1mA$ $I_F = 10mA$ $I_F = 50mA$ $I_F = 150mA$	-	0.715 0.855 1 1.25	V
Junction capacitance	$C_J$	$V_R = 0V, f = 1MHz$	-	2	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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# Surface Mount Fast Switching Diode

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

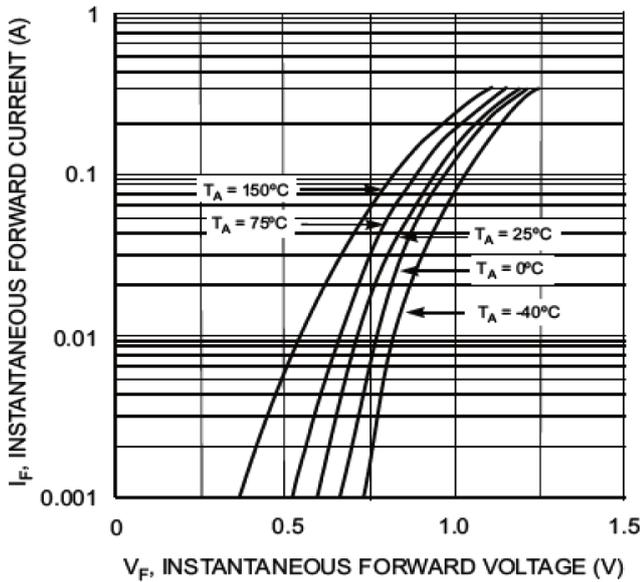


Fig. 1 Forward Characteristics

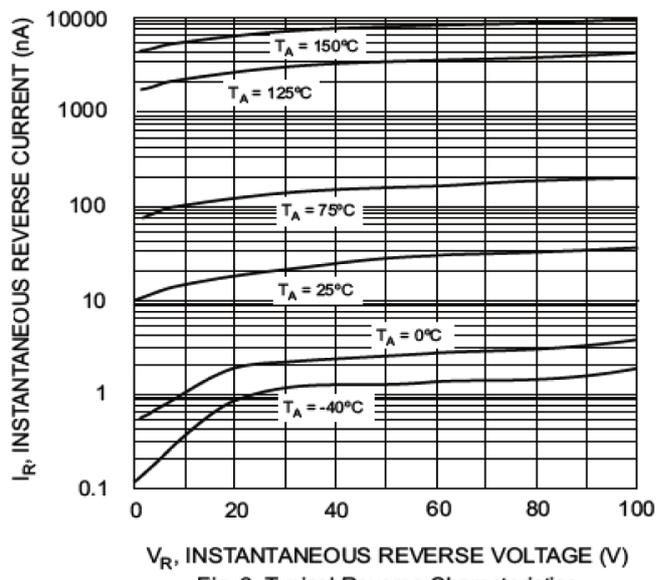


Fig. 2 Typical Reverse Characteristics

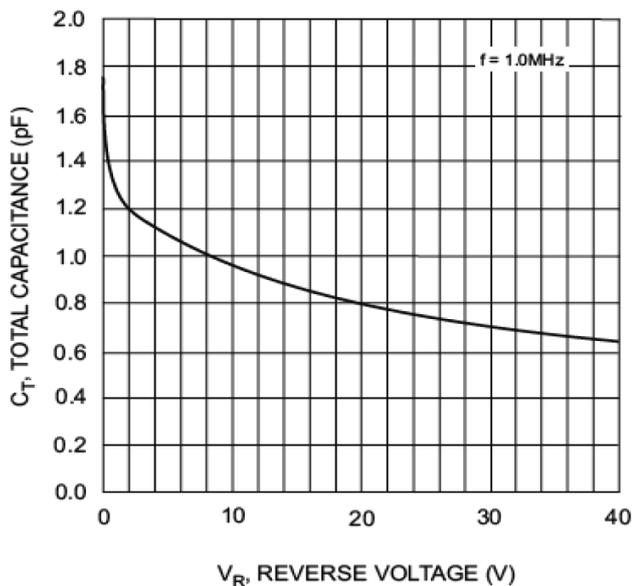


Fig. 3 Typical Capacitance vs. Reverse Voltage

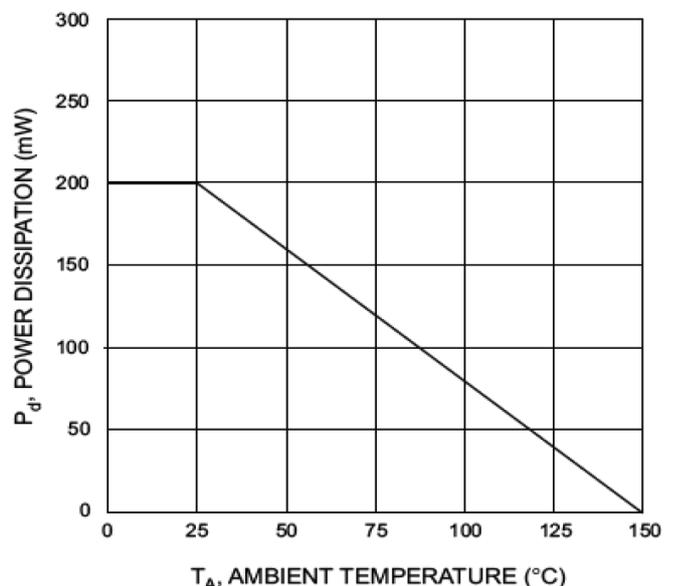


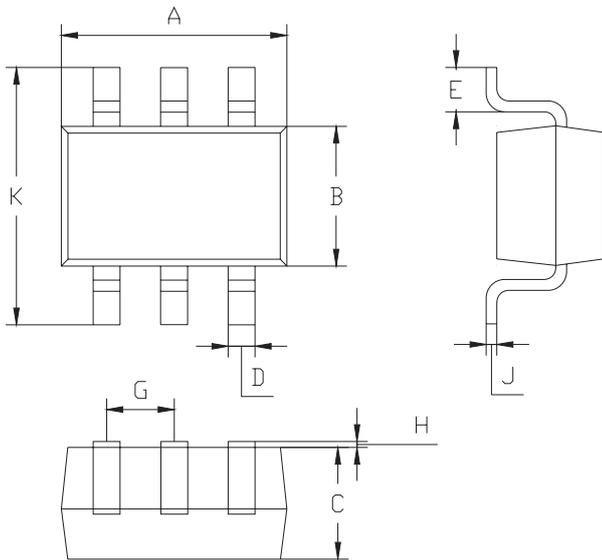
Fig. 4 Power Derating Curve

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# Surface Mount Fast Switching Diode

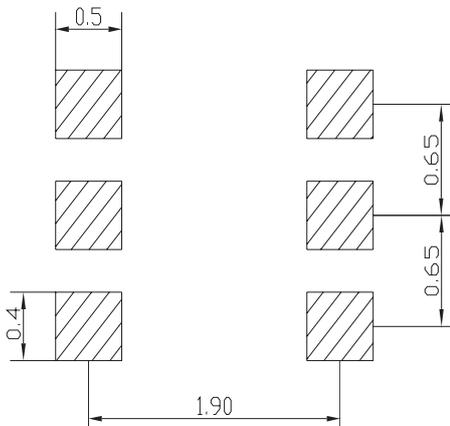
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## Plastic surface mounted package



SOT-363		
Dim	Min	Max
A	1.8	2.2
B	1.15	1.35
C	1 Typical	
D	0.1	0.3
E	0.25	0.4
G	0.65 Typical	
H	0.02	0.1
J	0.1 Typical	
K	2.1	2.3
All Dimensions in mm		

## Soldering Footprint



Unit : mm

## Package Information

Device	Package	Shipping
BAV99DW-7-F	SOT-363	3,000 / Tape & Reel

## Part Number Table

Description	Part Number
Surface Mount Fast Switching Diode	BAV99DW-7-F

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