

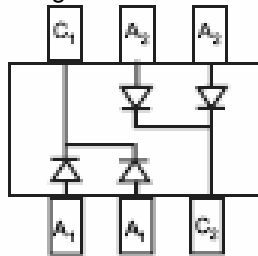
# BAV70DW

## Features

- Fast switching speed
- Ultra-Small surface mount package
- For general purpose switching applications
- High conductance
- Halogen free available upon request by adding suffix "-HF"

## Mechanical Data

- Lead Free Finish/Rohs Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Marking Code: KJA
- MSL Rating 1
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1



## Maximum Ratings

Symbol	Rating	Rating	Unit
$V_{RM}$	Non-Repetitive Peak Reverse Voltage	100	V
$V_{RRM}$	Peak Repetitive Reverse Voltage	75	V
$V_{RWM}$	Working Peak Reverse Voltage		
$V_R$	DC Blocking Voltage		
$V_{R(RMS)}$	RMS Reverse Voltage	53	V
$I_{FM}$	Forward Continuous Current	300	mA
$I_O$	Average Rectified Output Current	150	mA
$I_{FSM}$	Non-Repetitive Peak Forward Surge Current @ $t=1.0\mu s$ @ $t=1.0s$	2.0	A
		1.0	
$P_D$	Power Dissipation	200	mW
$R_{JA}$	Thermal Resistance Junction to Ambient Air	625	$^{\circ}C/W$
$T_J$	Junction Temperature	-55 to +150	$^{\circ}C$
$T_{STG}$	Storage Temperature	-55 to +150	$^{\circ}C$

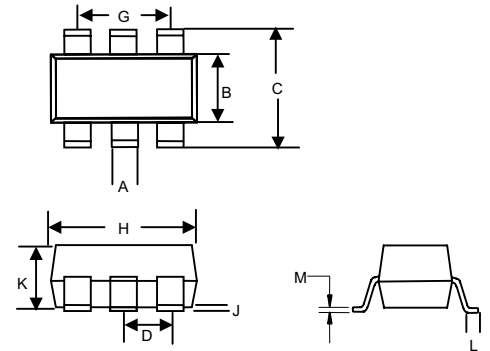
## Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units
$V_{(BR)R}$	Reverse Breakdown Voltage ( $I_R=2.5 \mu A$ )	75	---	---	V
$V_F$	Forward Voltage <sup>(1)</sup> $I_F=1.0mA$	---	---	0.715	V
	$I_F=10mA$	---	---	0.855	
	$I_F=50mA$	---	---	1.0	
	$I_F=150mA$	---	---	1.25	
$I_R$	Leakage Current <sup>(1)</sup> ( $V_R=75Vdc$ )	---	---	2.5	$\mu A$
	( $V_R=75Vdc, T_J=150^{\circ}C$ )	---	---	50	$\mu A$
	( $V_R=25Vdc, T_J=150^{\circ}C$ )	---	---	30	$\mu A$
	( $V_R=20Vdc$ )	---	---	25	nA
$C_j$	Junction Capacitance ( $V_R=0, f=1.0MHz$ )	---	---	2.0	pF
$t_{rr}$	Reverse Recovery Time ( $I_F=10mA, I_R=10mA, I_{rr}=0.1 \times I_R$ $R_L=100\Omega$ )	---	---	4.0	ns

\* (1) Short duration test pulse to minimize self-heating effect.

## 200mW Switching Diodes 75 Volts

### SOT-363



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.006	.014	0.15	0.35	
B	.045	.053	1.15	1.35	
C	.085	.096	2.15	2.45	
D	.026		0.65Nominal		
G	.047	.055	1.20	1.40	
H	.071	.087	1.80	2.20	
J	---	.004	---	0.10	
K	.035	.043	0.90	1.10	
L	.010	.018	0.26	0.46	
M	.003	.006	0.08	0.15	

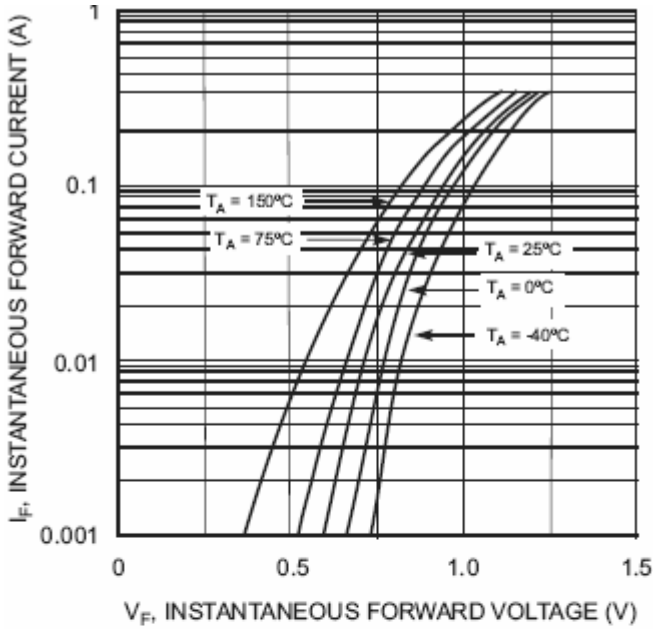


Fig. 1 Forward Characteristics

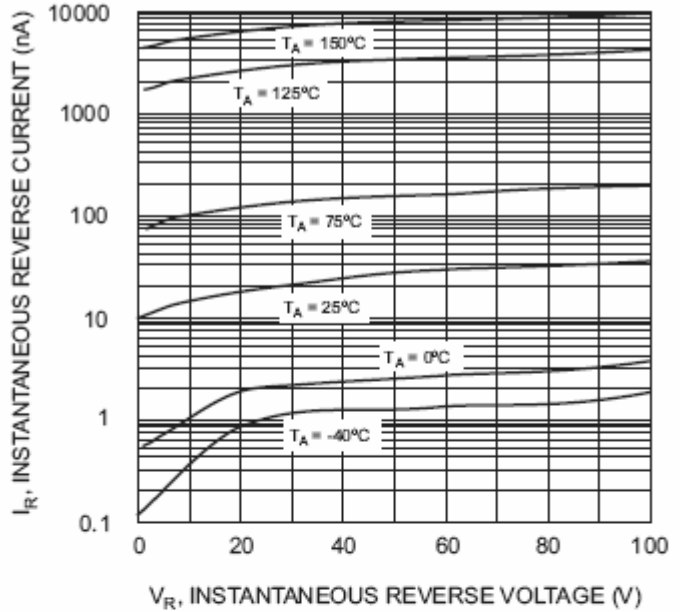


Fig. 2 Typical Reverse Characteristics

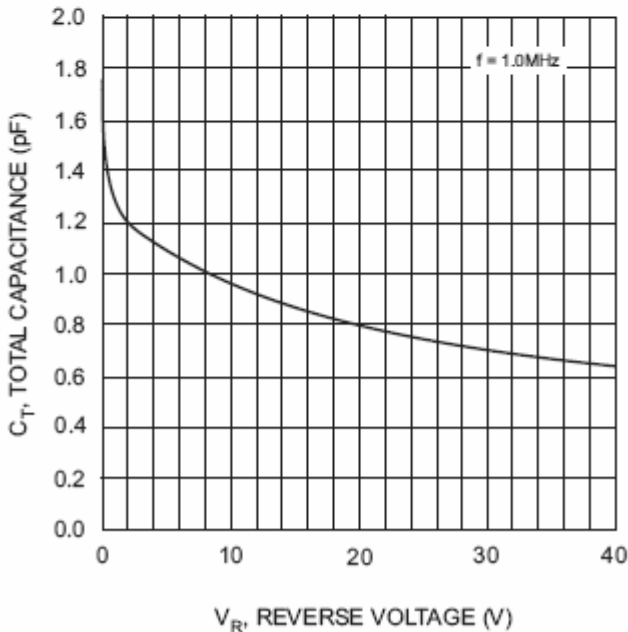


Fig. 3 Typical Capacitance vs. Reverse Voltage

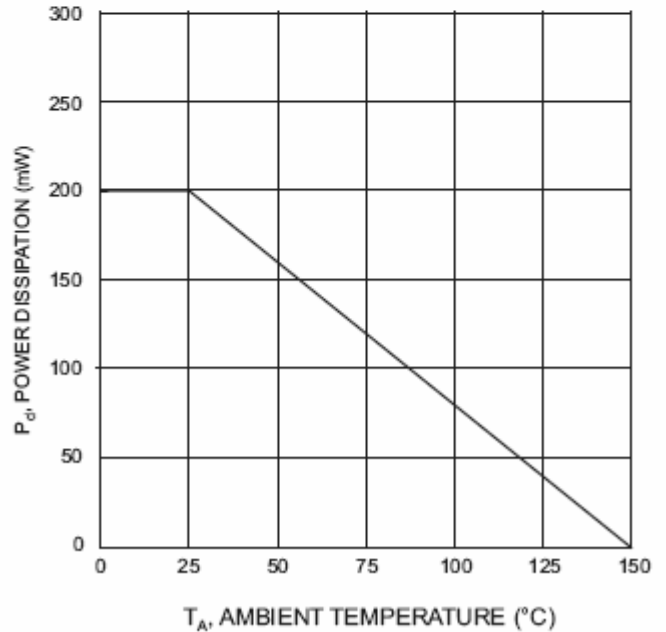


Fig. 4 Power Derating Curve



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### Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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