

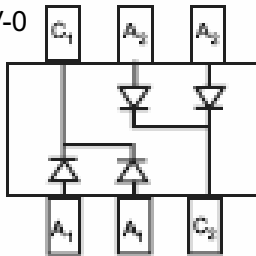
# BAV70DW

## Features

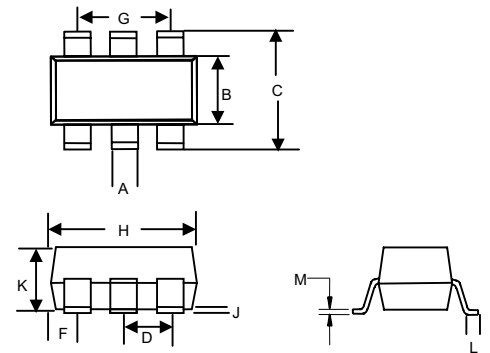
- Fast switching speed
- Ultra-Small surface mount package
- For general purpose switching applications
- High conductance

## Mechanical Data

- Case Material: Molded Plastic.  
UL Flammability Classification Rating 94V-0
- Marking Code: KJA
- MSL Rating 1



## SOT-363



DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.004	.012	0.10	0.30	
B	.045	.053	1.15	1.35	
C	.079	.087	2.00	2.20	
D	.026		0.65Nominal		
F	.012	.016	0.30	0.40	
H	.071	.087	1.80	2.20	
J	---	.004	---	0.10	
K	.035	.039	0.90	1.00	
L	.010	.016	0.25	0.40	
M	.004	.016	0.10	0.25	

## 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 @ $t=1.0\mu s$	2.0	A
	@ $t=1.0s$	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 ( $I_R=2.5 \mu A_{dc}$ )	75	---	---	V
$V_F$	Forward Voltage <sup>(1)</sup> $I_F=1.0mA_{dc}$	---	---	0.715	V
	$I_F=10mA_{dc}$	---	---	0.855	
	$I_F=50mA_{dc}$	---	---	1.0	
	$I_F=150mA_{dc}$	---	---	1.25	
$I_R$	Leakage Current <sup>(1)</sup> ( $V_R=75V_{dc}$ )	---	---	2.5	$\mu A$
	( $V_R=75V_{dc}$ , $T_J=150^{\circ}C$ )	---	---	50	$\mu A$
	( $V_R=25V_{dc}$ , $T_J=150^{\circ}C$ )	---	---	30	$\mu A$
	( $V_R=20V_{dc}$ )	---	---	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

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

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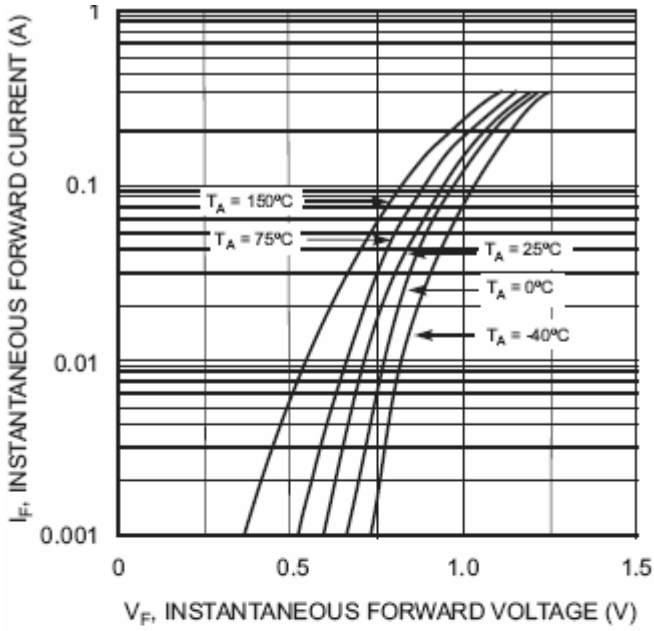


Fig. 1 Forward Characteristics

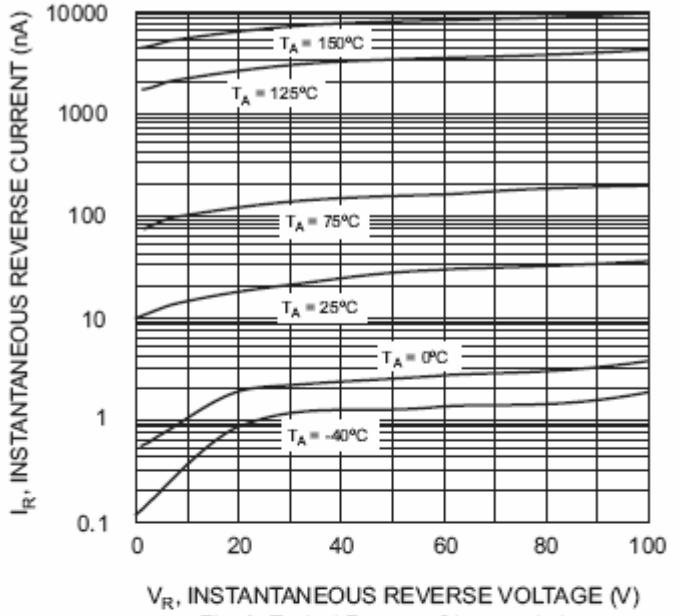


Fig. 2 Typical Reverse Characteristics

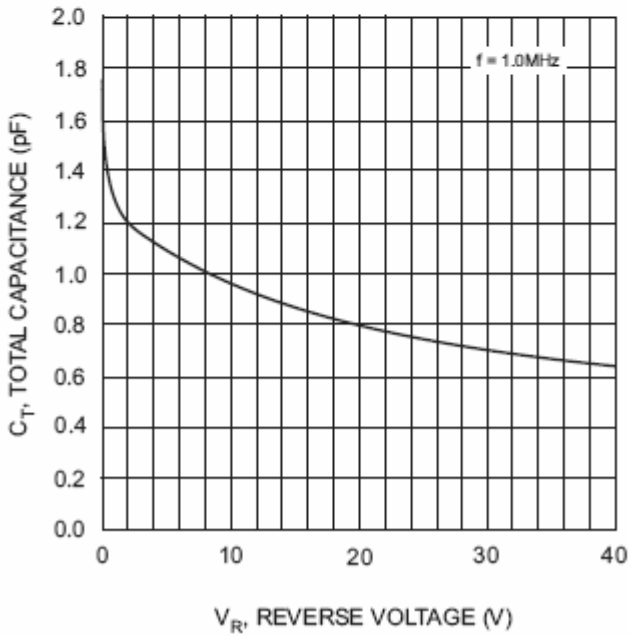


Fig. 3 Typical Capacitance vs. Reverse Voltage

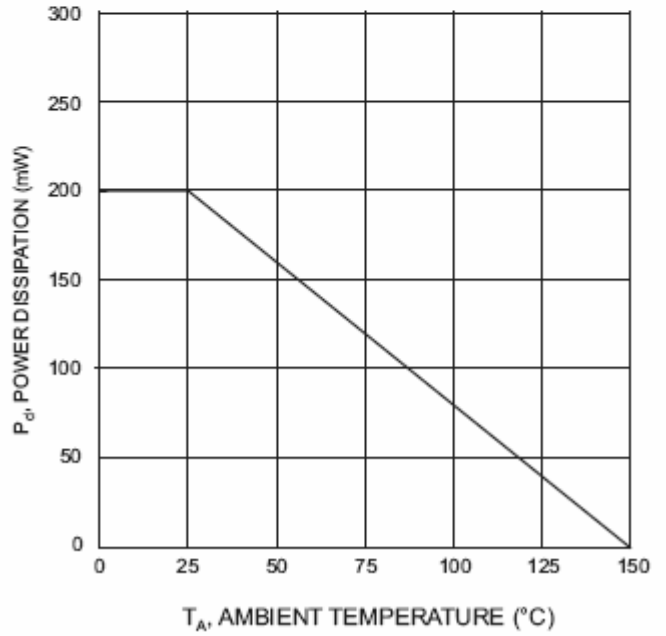


Fig. 4 Power Derating Curve

## Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel;3Kpcs/Reel