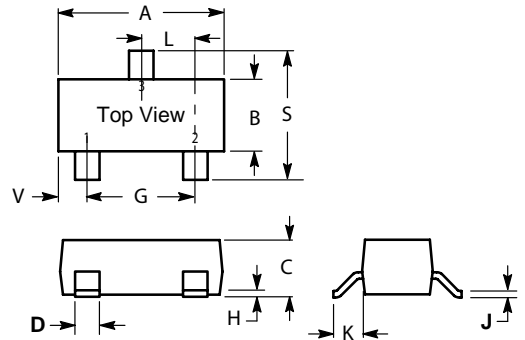
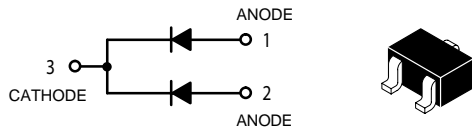


RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

**FEATURES**

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- High Conductance



**MAXIMUM RATINGS (EACH DIODE)**

Rating	Symbol	Value	Unit
Reverse Voltage	$V_R$	70	Vdc
Forward Current	$I_F$	200	mAdc
Peak Forward Surge Current	$I_{FM(surge)}$	500	mAdc

SOT-323(SC-70)		
Dim	Min	Max
A	1.800	2.200
B	1.150	1.350
C	0.800	1.000
D	0.300	0.400
G	1.200	1.400
H	0.000	0.100
J	0.100	0.250
K	0.350	0.500
L	0.590	0.720
S	2.000	2.400
V	0.280	0.420
All Dimension in mm		

**THERMAL CHARACTERISTICS**

Characteristic	Symbol	Max	Unit
Total Device Dissipation FR-5 Board(1) $T_A = 25^\circ\text{C}$ Derate above $25^\circ\text{C}$	$P_D$	200	mW
		1.6	mW/ $^\circ\text{C}$
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	0.625	$^\circ\text{C}/\text{W}$
Total Device Dissipation Alumina S ubstrate,(2) $AT=25^\circ\text{C}$ Derate above $25^\circ\text{C}$	$P_D$	300	mW
		2.4	mW/ $^\circ\text{C}$
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	417	$^\circ\text{C}/\text{W}$
Junction and Storage Temperature	$T_J, T_{stg}$	-55to+150	$^\circ\text{C}$

**DEVICE MARKING**

BAV70W = A 4, KJA
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**ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$  unless otherwise noted) (EACH DIODE)**

Characteristic	Symbol	Min	Max	Unit
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**OFF CHARACTERISTICS**

Reverse Breakdown Voltage ( $I_{(BR)} = 100 \text{ Adc}$ )	$V_{(BR)}$	70	—	Vdc
Reverse Voltage Leakage Current  ( $V_R = 70 \text{ Vdc}$ ) ( $V_R = 70 \text{ Vdc}, T_J = 150^\circ\text{C}$ )	$I_R$	—	5.0 100	$\mu\text{Adc}$
Diode Capacitance ( $V_R = 0, f = 1.0 \text{ MHz}$ )	$C_D$	—	1.5	pF
Forward Voltage ( $I_F = 1.0 \text{ mAdc}$ ) ( $I_F = 10 \text{ mAdc}$ ) ( $I_F = 50 \text{ mAdc}$ ) ( $I_F = 150 \text{ mAdc}$ )	$V_F$	—	715 855 1000 1250	mVdc
Reverse Recovery Time ( $I_F = I_R = 10 \text{ mAdc}, I_R (REC) = 1.0 \text{ mAdc}$ ) (Figure 1) $R_L = 100$	$t_{rr}$	—	6.0	ns
Forward Recovery Time ( $I_F = 10 \text{ mAdc}, t_f = 20 \text{ ns}$ ) (Figure 2)	$V_{RF}$	—	1.75	V

1. FR-5 = 1.0 X 0.75 X 0.062 in.  
2. Alumina = 0.4 X 0.3 X 0.024 in. 99.5% alumina.  
3. For each individual diode while the second diode is unbiased.

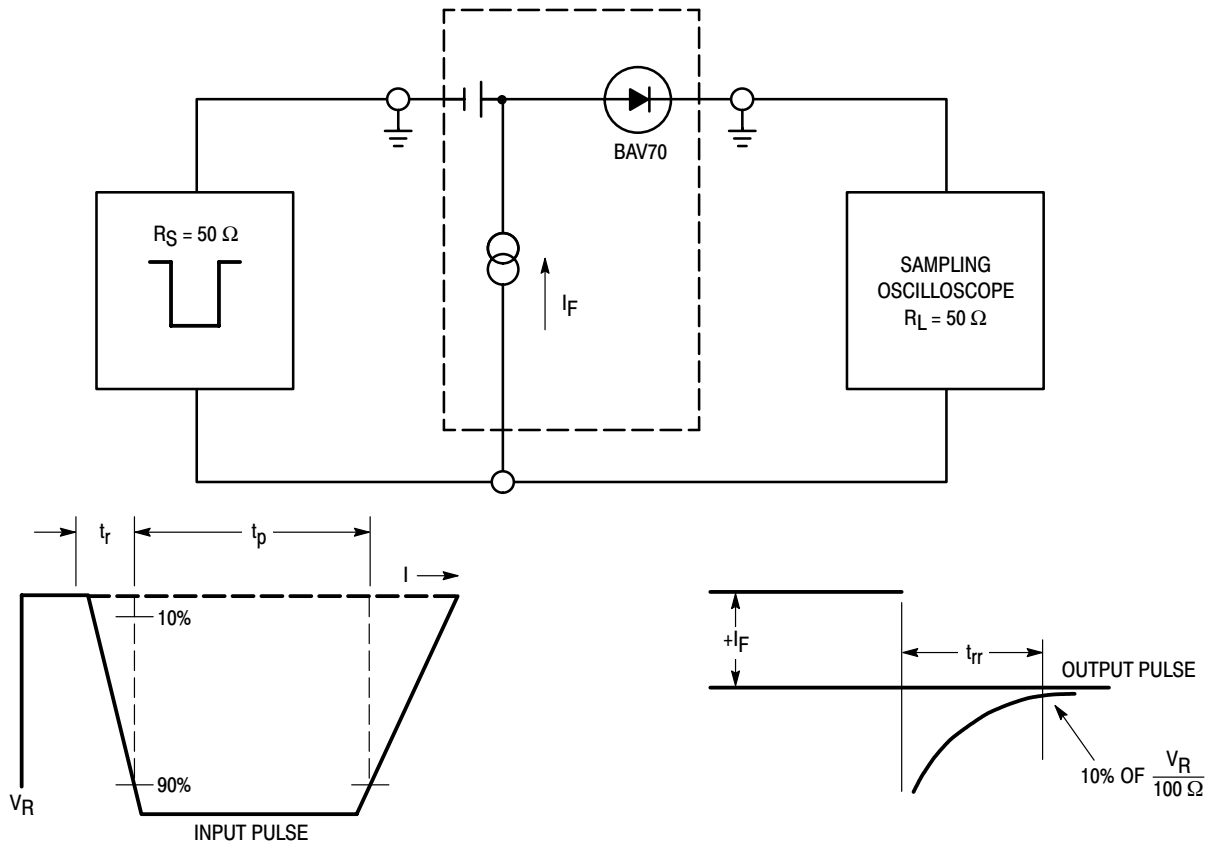


Figure 1. Recovery Time Equivalent Test Circuit

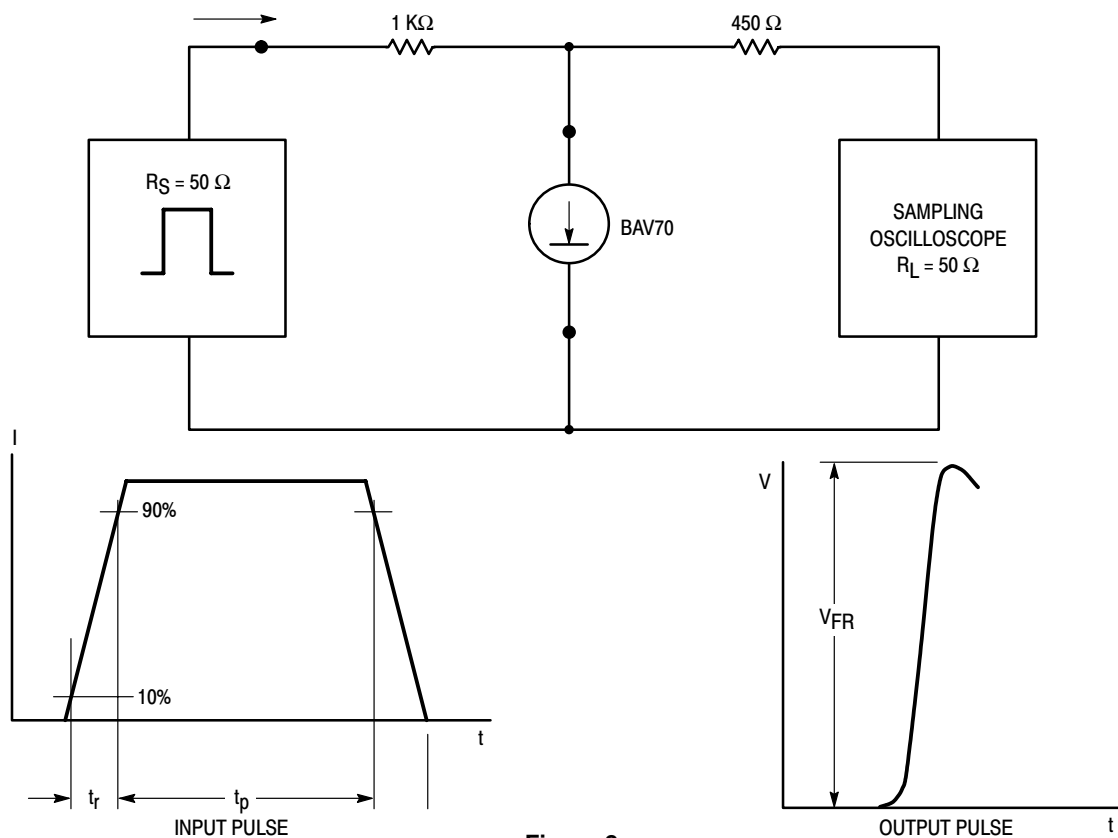


Figure 2.

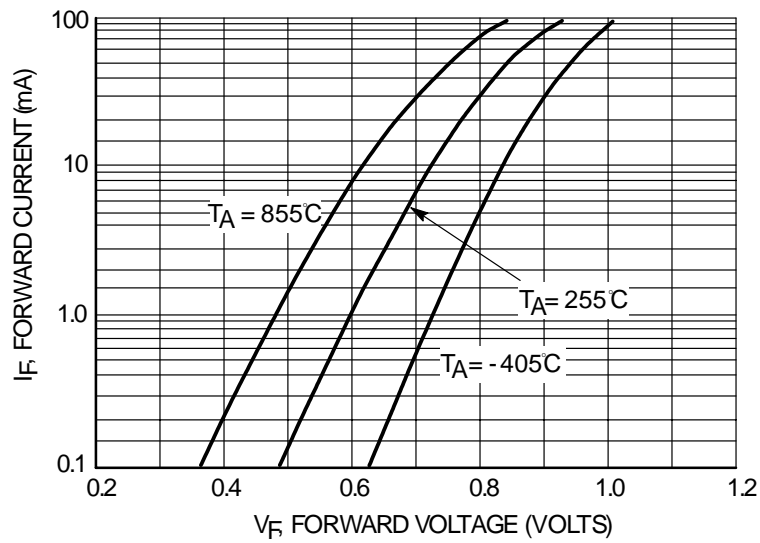


Figure 3. Forward Voltage

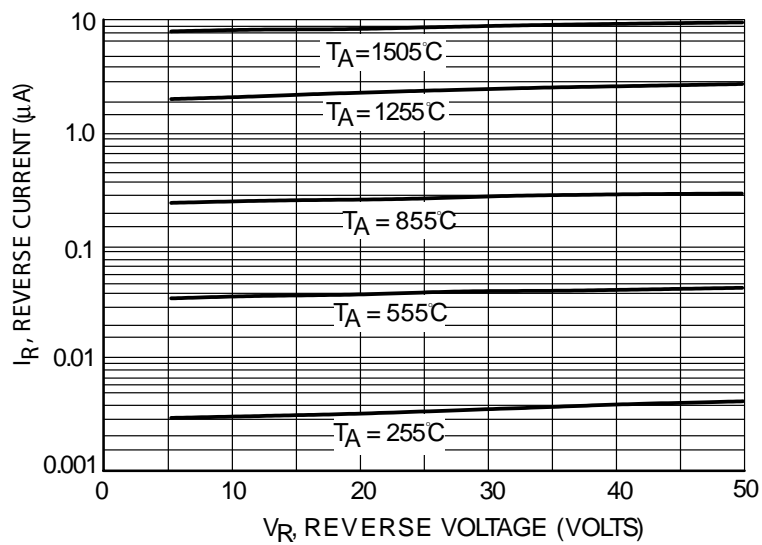


Figure 4. Leakage Current

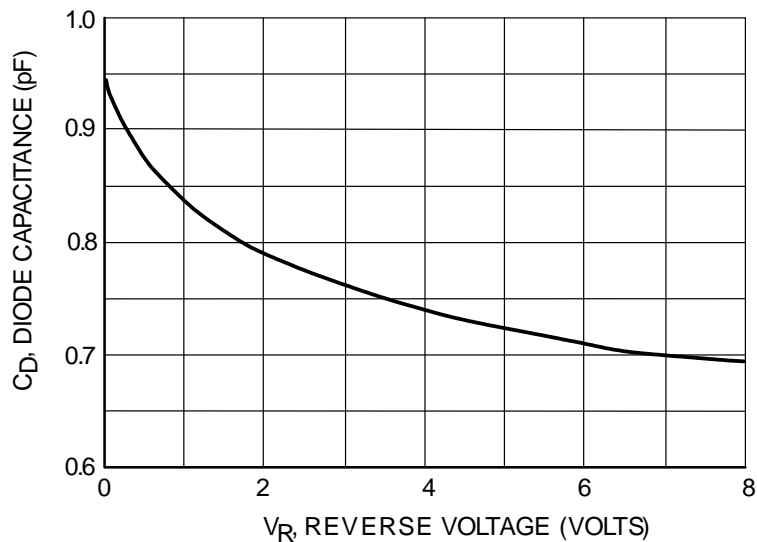


Figure 5. Capacitance