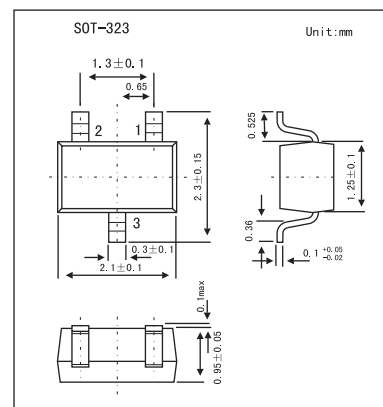
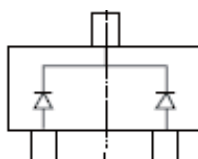


Dual Surface Mount Switching Diode

KAV70W (BAV70W)

■ Features

- Fast Switching Speed
- Ultra-Small Surface Mount Package
- For General Purpose Switching Applications
- High Conductance

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage	V_{RRM}	75	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	50	V
Average Rectified Output Current	I_o	150	mA
Forward Continuous Current	I_{FM}	300	mA
Non-Repetitive Peak Forward Surge Current @ $t = 1.0 \mu\text{s}$	I_{FSM}	2.0	A
@ $t = 1.0\text{s}$		1.0	
Power Dissipation	P_d	200	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	625	K/W
Operating and Storage Temperature Range	T, T_{STG}	-65 to +150	$^\circ\text{C}$

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

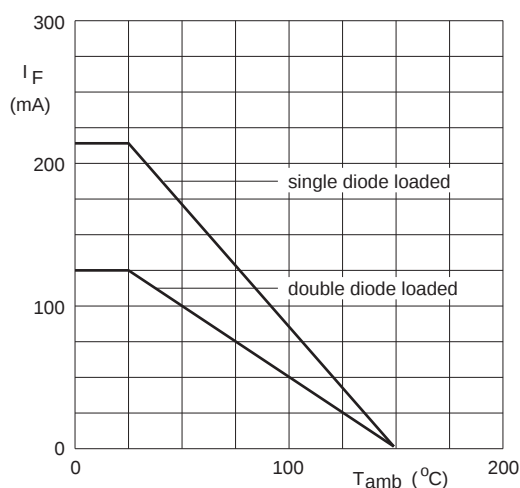
Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_F = 10 \mu\text{A}$	75			V
Forward Voltage	V_F	$I_F = 1.0\text{mA}$ $I_F = 10\text{mA}$ $I_F = 50\text{mA}$ $I_F = 150\text{mA}$			0.715 0.855 1.0 1.25	V
Peak Reverse Current	I_{RM}	$V_R = 75\text{V}$ $V_R = 75\text{V}, T_j = 150^\circ\text{C}$ $V_R = 25\text{V}, T_j = 150^\circ\text{C}$ $V_R = 20\text{V}$			2.5 50 30 25	μA μA μA nA
Junction Capacitance	C_j	$V_R = 0, f = 1.0\text{MHz}$			2	pF
Reverse Recovery Time	t_{rr}	$I_F = I_R = 10\text{mA}, I_{rr} = 0.1 \times I_R, R_L = 100 \Omega$			4	ns

■ Marking

Marking	A4*
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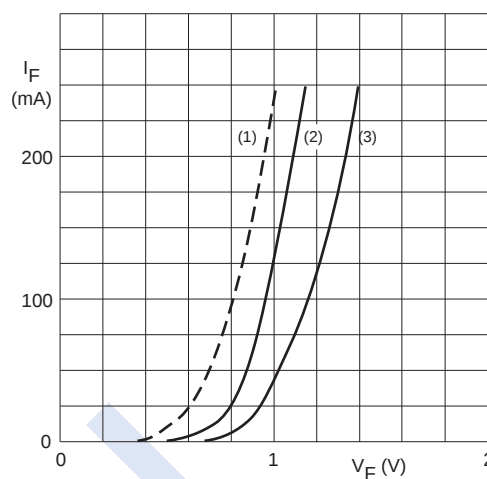
KAV70W (BAV70W)

■ Typical Characteristics



Device mounted on an FR4 printed-circuit board.

Fig.1 Maximum permissible continuous forward current as a function of ambient temperature.



- (1) $T_j = 150^{\circ}C$; typical values.
 (2) $T_j = 25^{\circ}C$; typical values.
 (3) $T_j = 25^{\circ}C$; maximum values.

Fig.2 Forward current as a function of forward voltage.

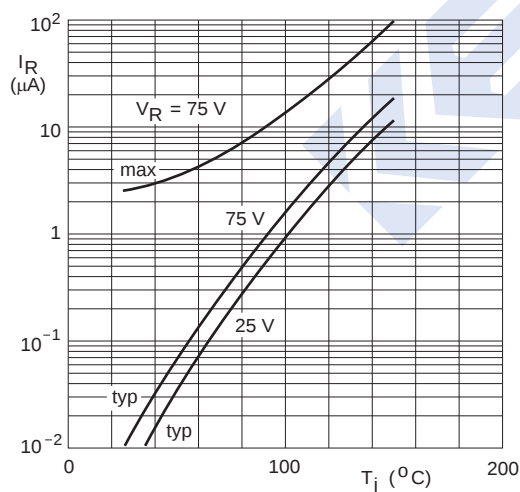
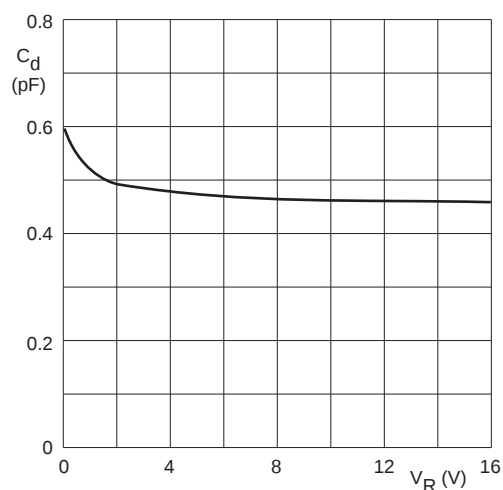


Fig.3 Reverse current as a function of junction temperature.



$f = 1 \text{ MHz}$; $T_j = 25^{\circ}C$.

Fig.4 Diode capacitance as a function of reverse voltage; typical values.