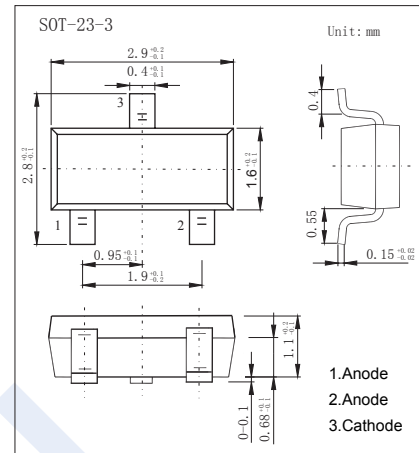
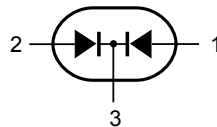


Switching Diodes

BAV170 (KAV170)

■ Features

- Switching time: typ. 0.8 us
- Continuous reverse voltage:75V (max)
- Repetitive peak reverse voltage:85V (max)
- Repetitive peak forward current:500mA (max)



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Repetitive Peak Reverse Voltage	V _{RM}	85	V
Continuous Reverse Voltage	V _R	75	
Forward Current - Single Diode Loaded; - Double Diode Loaded;	I _F	215 125	mA
Peak Forward Surge Current	I _{FM}	500	
Non-Repetitive Peak Forward Current	I _{FSM}	t _p =1us 4	A
		t _p =1ms 1	
		t _p =1s 0.5	
Power Dissipation	P _d	250	mW
Thermal Resistance from Junction to Ambient	R _{th j-a}	500	°C/W
Thermal Resistance from Junction to Tie-Point	R _{th j-tp}	360	
Junction Temperature	T _J	150	°C
Storage Temperature range	T _{stg}	-65 to 150	

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	V _R	I _R = 100 uA	75			V
Forward voltage	V _{F1}	I _F = 1 mA			0.9	
	V _{F2}	I _F = 10 mA			1	
	V _{F3}	I _F = 50 mA			1.1	
	V _{F4}	I _F = 150 mA			1.25	
Reverse voltage leakage current	I _{R1}	V _R = 75 V			5	nA
		V _R = 75 V, T _J = 150°C			80	
Diode capacitance	C _d	V _R = 0 V, f= 1 MHz		2		pF
Reverse recovery time	t _{rr}	I _F =I _R =10mA, I _{rr} =0.1xI _R , R _L =100Ω			3	us

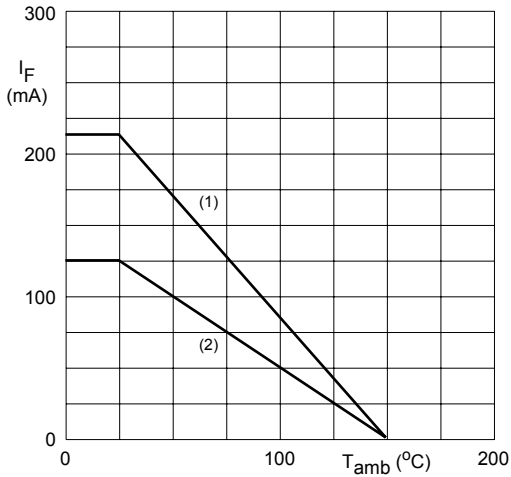
■ Marking

Marking	JX*
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Switching Diodes

BAV170 (KAV170)

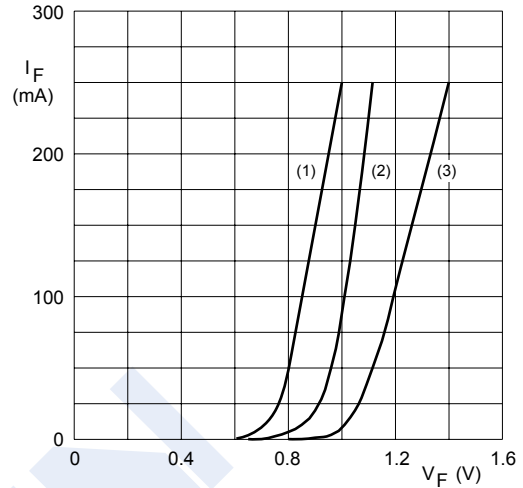
■ Typical Characteristics



Device mounted on a FR4 printed-circuit board.

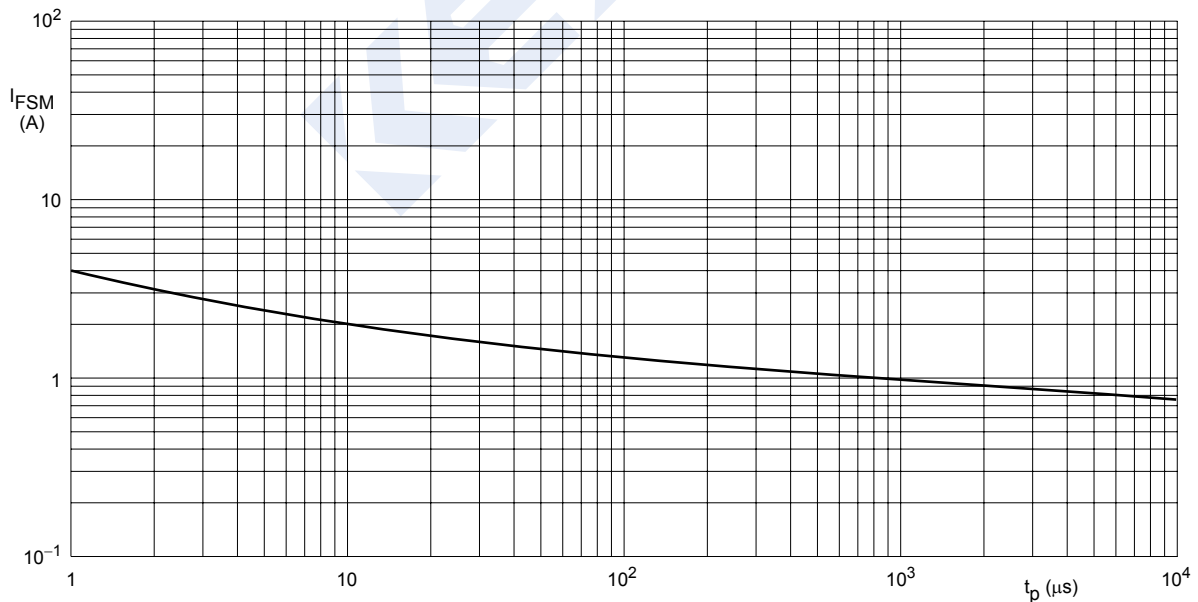
- (1) Single diode loaded.
- (2) Double diode loaded.

Fig.2 Maximum permissible continuous forward current as a function of ambient temperature.



- (1) $T_j = 150$ °C; typical values.
- (2) $T_j = 25$ °C; typical values.
- (3) $T_j = 25$ °C; maximum values.

Fig.3 Forward current as a function of forward voltage; per diode.



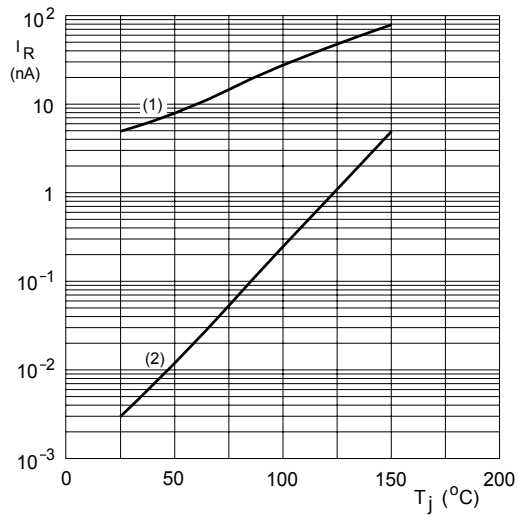
Based on square wave currents; $T_j = 25$ °C prior to surge.

Fig.4 Maximum permissible non-repetitive peak forward current as a function of pulse duration per diode.

Switching Diodes

BAV170 (KAV170)

■ Typical Characteristics

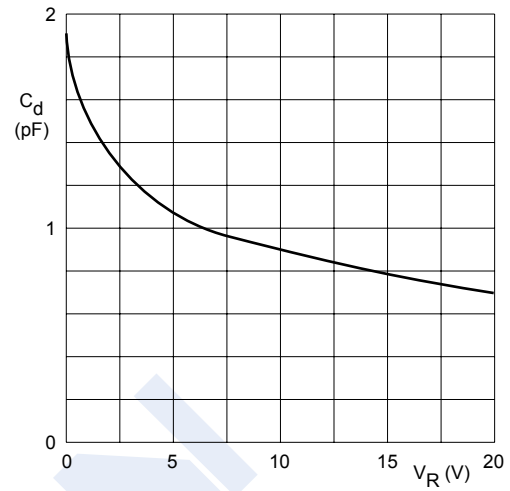


$V_R = 75 \text{ V}$.

(1) Maximum values.

(2) Typical values.

Fig.5 Reverse current as a function of junction temperature; per diode.



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

Fig.6 Diode capacitance as a function of reverse voltage; per diode; typical values.