

## Surface Mount Fast Switching Diodes

## BAV99S

### FEATURES

- High switching speed.
- For general purpose switching application.
- Small plastic SMD speed.
- Low capacitance.
- Two electrically isolated series configuration arrays.

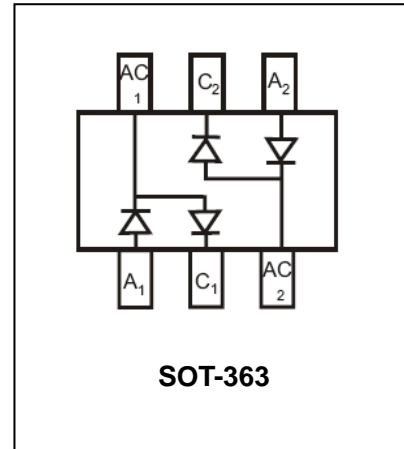


Lead-free

- MSL 1

### APPLICATIONS

- For general purpose switching application.



### ORDERING INFORMATION

Type No.	Marking	Package Code
BAV99S	K1	SOT-363

### MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Characteristic	Value	Unit
$V_{RRM}$	Non-repetitive peak reverse voltage	85	V
$V_R$	Continuous Reverse voltage	75	V
$I_{FRM}$	Repetitive peak forward current	450	mA
$I_F$	Forward continuous current	200	mA
$I_{FSM}$	Non-repetitive peak forward surge current		A
	@t=1.0μs	4.5	
	@t=1.0ms	1.0	
	@t=1.0s	0.5	
$P_D$	Power Dissipation	250	mW
$T_j, T_{stg}$	Junction and Storage Temperature	-65 to +150	°C

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### ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)R}$	$I_R=2.5\mu A$	75		V
Forward voltage	$V_F$	$I_F=1.0mA$ $I_F=10mA$ $I_F=50mA$ $I_F=150mA$		0.715 0.855 1.0 1.25	V
Reverse Current	$I_R$	$V_R=75V$ $V_R=25V, T_j=150^\circ C$ $V_R=75V, T_j=150^\circ C$		1 30 50	$\mu A$ $\mu A$ $\mu A$
Total Capacitance	$C_D$	$V_R=0V, f=1.0MHz$		1.5	pF
Reverse Recovery time	$t_{rr}$	$I_F=I_R=10mA$ $R_L=100\Omega$		4.0	ns

### TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

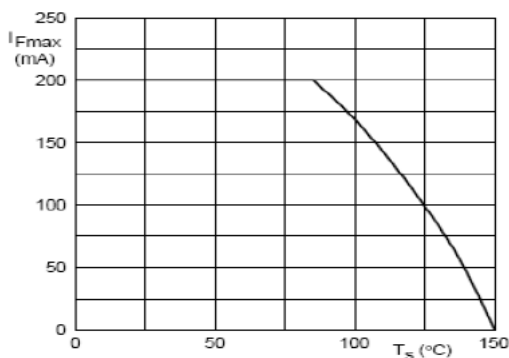
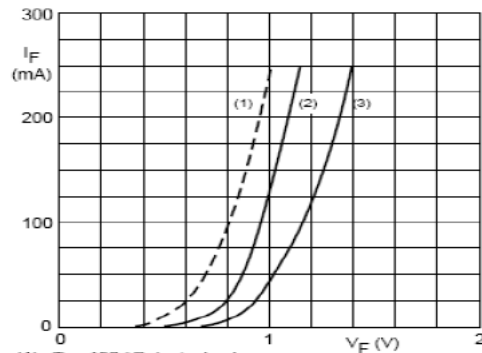
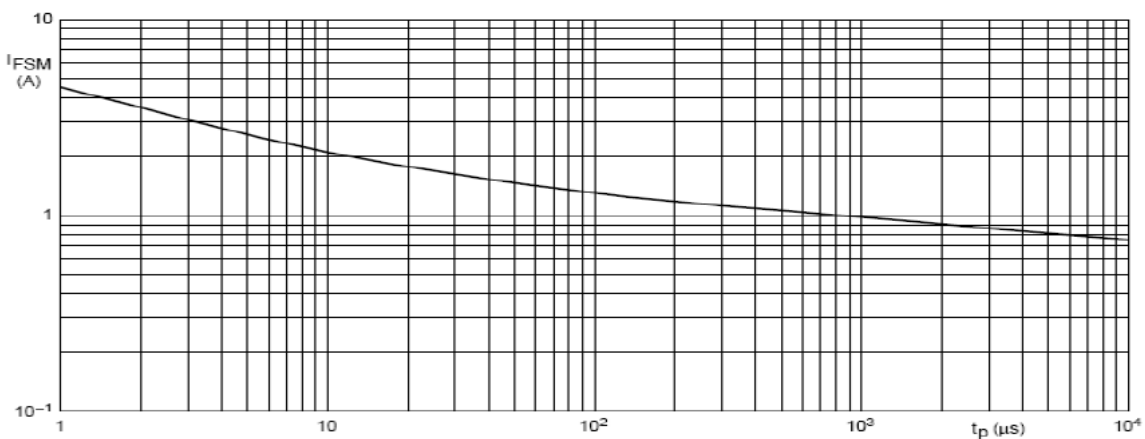


Fig. 1 Maximum permissible continuous forward current as a function of soldering point temperature.



(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.



Based on square wave currents.  
 $T_j = 25^\circ C$  prior to surge.

Fig. 3 Maximum permissible non-repetitive peak forward current as a function of pulse duration.

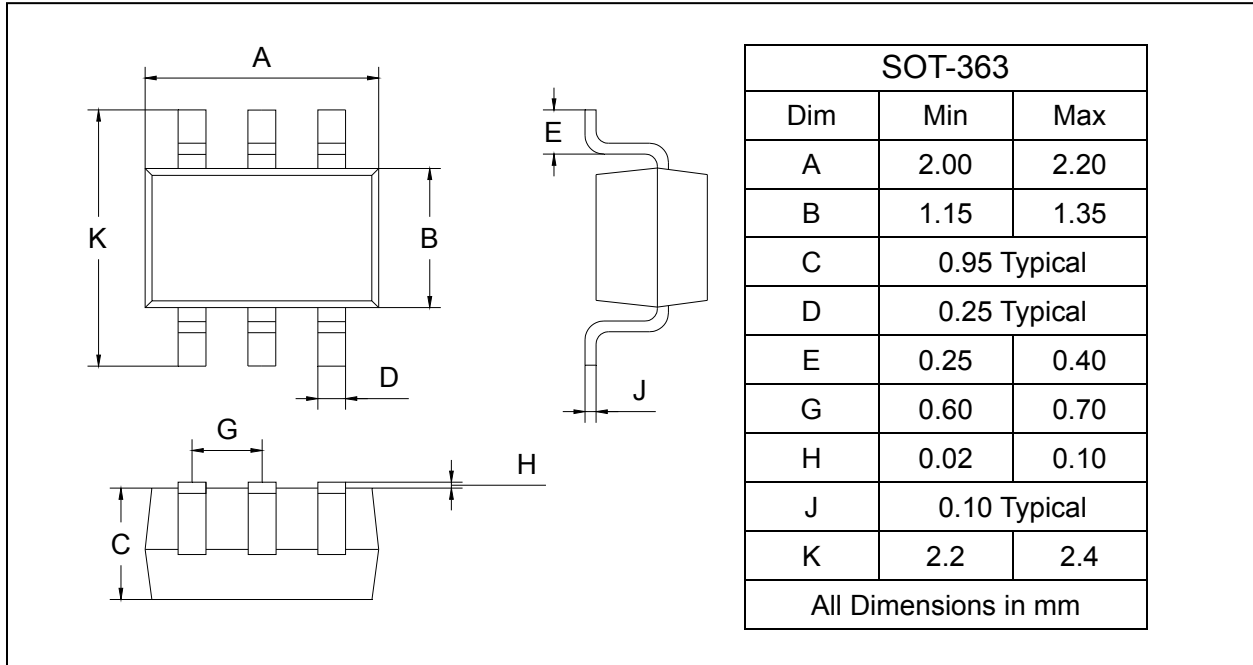
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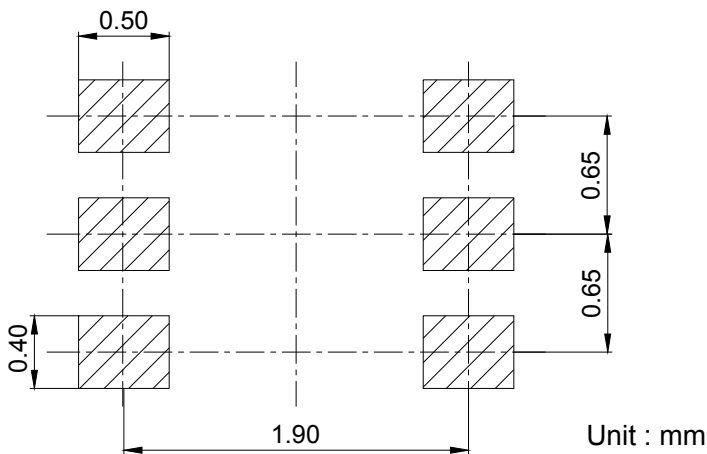
### PACKAGE OUTLINE

Plastic surface mounted package

SOT-363



### SOLDERING FOOTPRINT



### PACKAGE INFORMATION

Device	Package	Shipping
BAV99S	SOT-363	3000/Tape&Reel