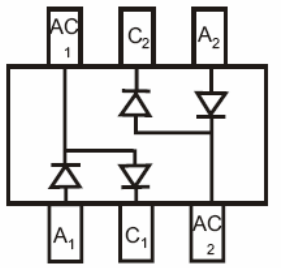
Surface Mount Fast Switching Diodes BAV99S

FEATURES

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

Lead-free



SOT-363

APPLICATIONS

- For general purpose switching application.

ORDERING INFORMATION

Type No.	Marking	Package Code
BAV99S	K1	SOT-363

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	Characteristic	Value	Unit
V_{RRM}	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 @t=1.0μs @t=1.0ms @t=1.0s	 4.5 1.0 0.5	A
P_D	Power Dissipation	250	mW
T_j, T_{stg}	Junction and Storage Temperature	-65 to+150	℃

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ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)R}$	I_R=2.5μA	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	-	1	μA
Diode Capacitance	C_D	V_R=0V,f=1.0MHz	-	1.5	pF
Reverse Recovery time	t_{rr}	I_F=I_R=10mAR_L=100Ω	-	4	ns

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

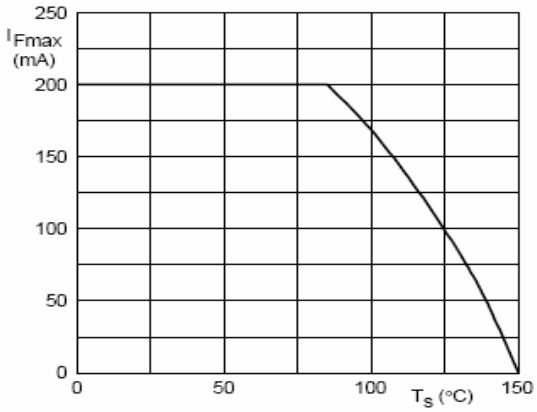
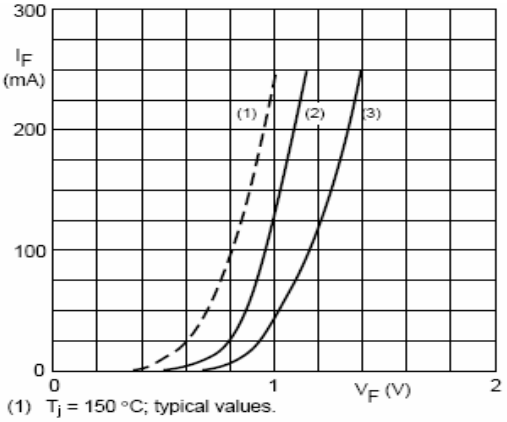
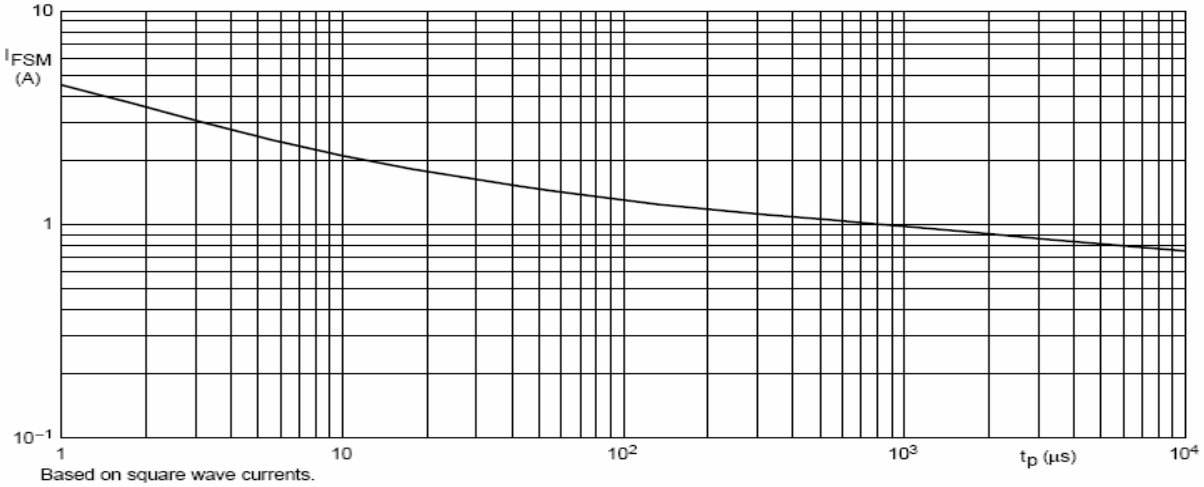


Fig. 1 Maximum permissible continuous forward current as a function of soldering point temperature.



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

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



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

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

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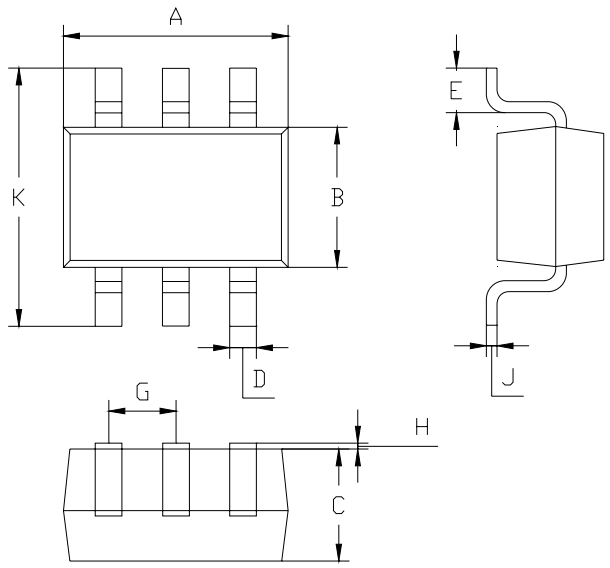
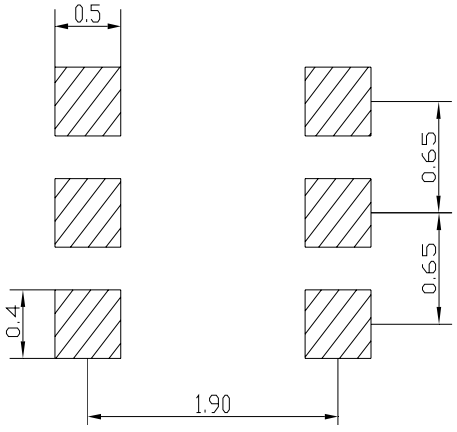
PACKAGE OUTLINE

Plastic surface mounted package SOT-363



SOT-363		
Dim	Min	Max
A	1.8	2.2
B	1.15	1.35
C	1.0Typical	
D	0.10	0.30
E	0.25	0.40
G	0.65Typical	
H	0.02	0.10
J	0.1Typical	
K	2.1	2.3
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

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