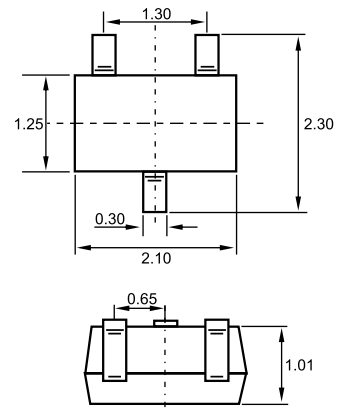

SOT-323


Dimensions in inches and (millimeters)

Features

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

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}	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

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	$V_R=75V$	-	1	μA
Diode 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	ns

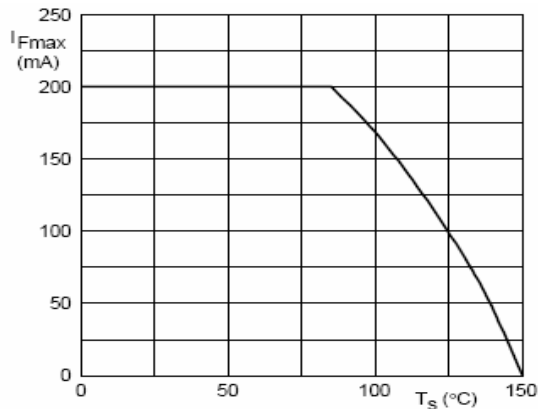
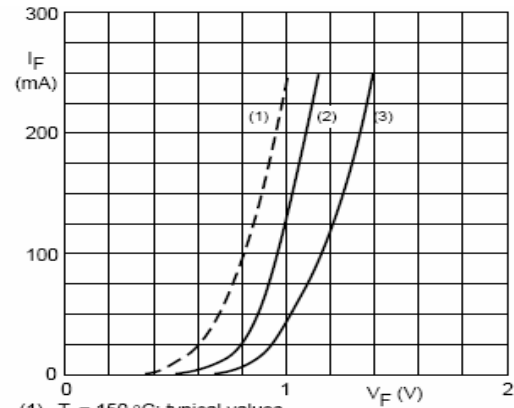
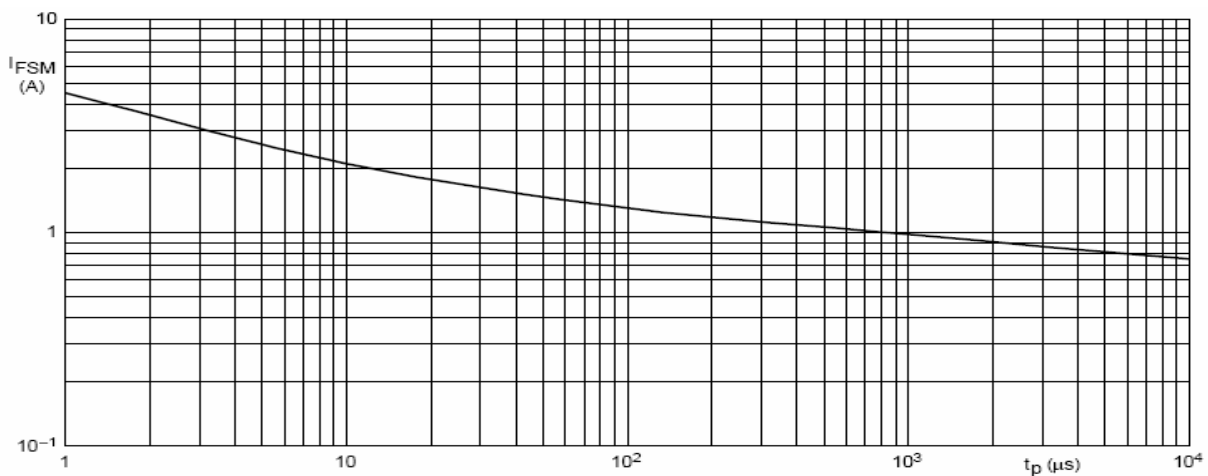
TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified


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.