

Surface Mount Fast Switching Diodes

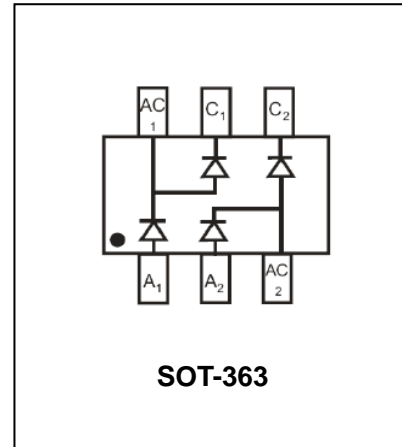
BAV99BRW

FEATURES

- Fast switching speed.
- For general purpose switching application.
- Ultra-small surface mount package.
- High conductance.
- Two “BAV99” Circuits in one package.



Lead-free



APPLICATIONS

- For general purpose switching application.

ORDERING INFORMATION

Type No.	Marking	Package Code
BAV99BRW	KGJ	SOT-363

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Characteristic	Value	Unit
V_{RM}	Non-Repetitive Peak Reverse Voltage	100	V
V_{RRM} V_{RWM} V_R	Peak repetitive reverse voltage Working peak reverse voltage DC reverse voltage	75	V
$V_{R(RMS)}$	RMS Reverse voltage	53	V
I_O	Average rectified output current	150	mA
I_{FSM}	Non-Repetitive Peak Forward Surge Current @t=1.0us @t=1.0s	2.0 1.0	A
P_D	Power Dissipation	200	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	625	°C/W
T_j, T_{stg}	Operating and Storage Temperature Range	-65 to +150	°C

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified



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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	$V_R=75V$ $V_R=75V, T_j=150^\circ C$ $V_R=25V, T_j=150^\circ C$ $V_R=20V$		2.5 50 30 25	μA μA μA nA
Total Capacitance	C_J	$V_R=0V, f=1.0MHz$		2.0	pF
Reverse Recovery time	t_{rr}	$I_F=I_R=10mA, I_{rr}=0.1 \cdot I_R,$ $R_L=100\Omega$		4.0	ns

TYPICAL CHARACTERISTICS @ $T_a=25^\circ C$ unless otherwise specified

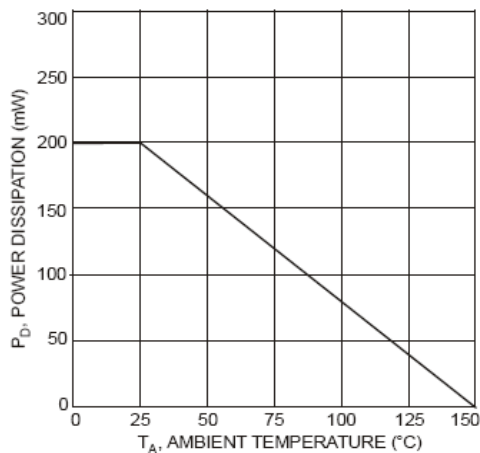


Fig. 1 Power Derating Curve, Total Package

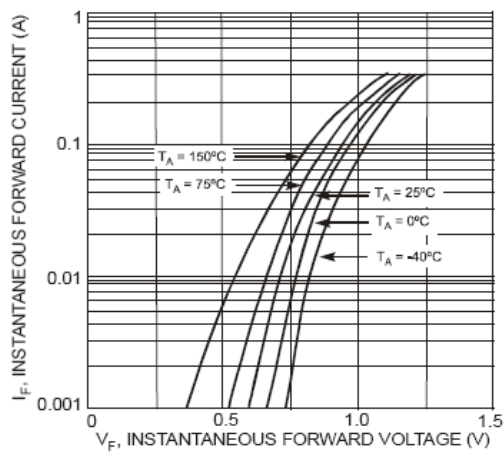


Fig. 2 Typical Forward Characteristics, Per Element

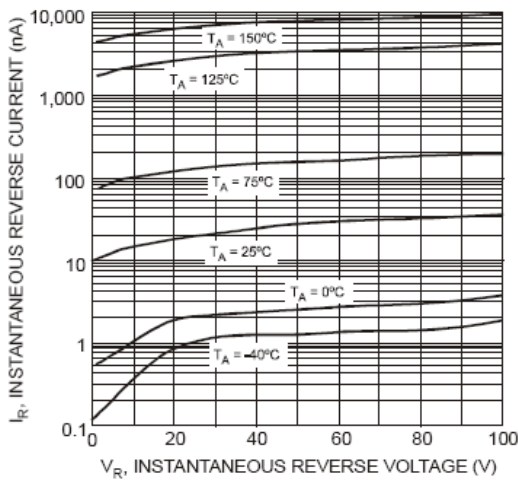


Fig. 3 Typical Reverse Characteristics, Per Element

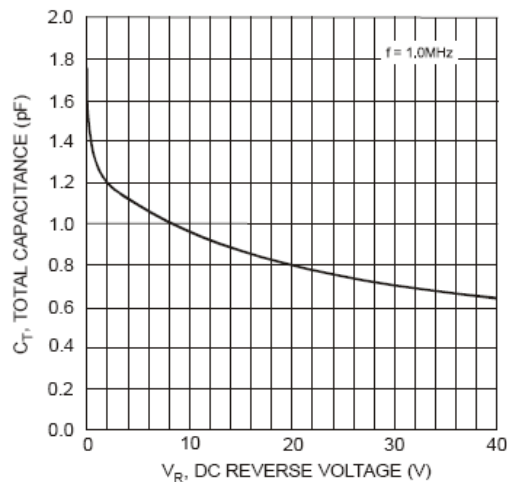


Fig. 4 Total Capacitance vs. Reverse Voltage, Per Element

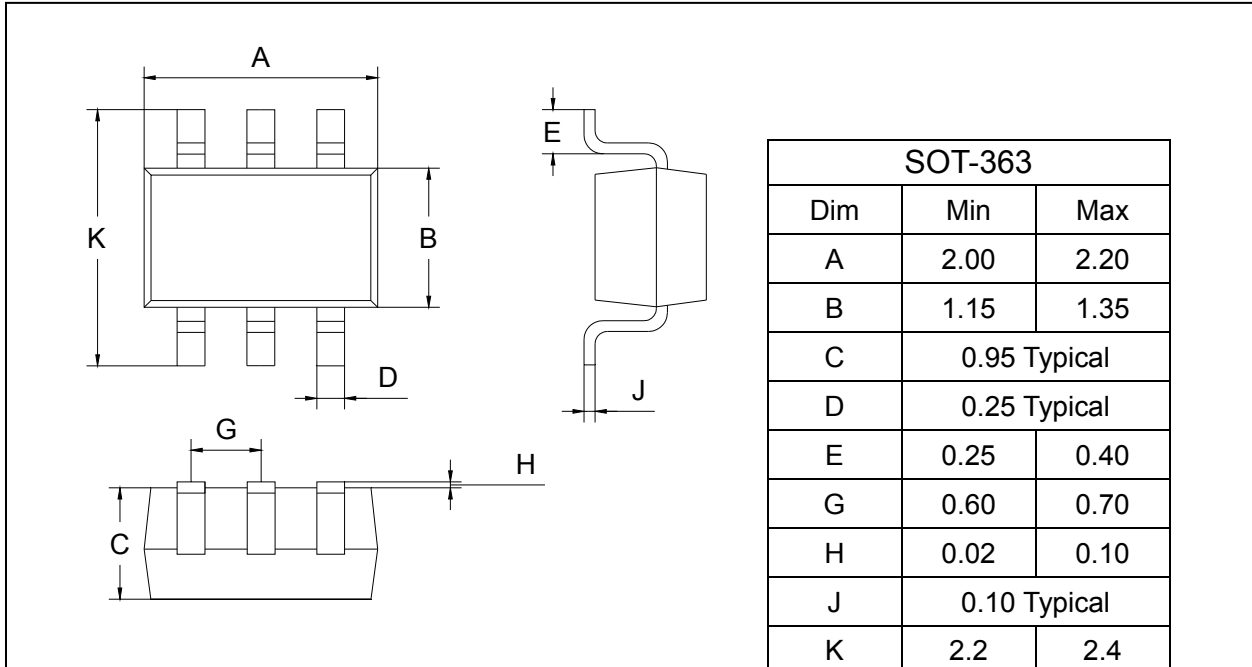
PACKAGE OUTLINE

Surface Mount Fast Switching Diodes

BAV99BRW

Plastic surface mounted package

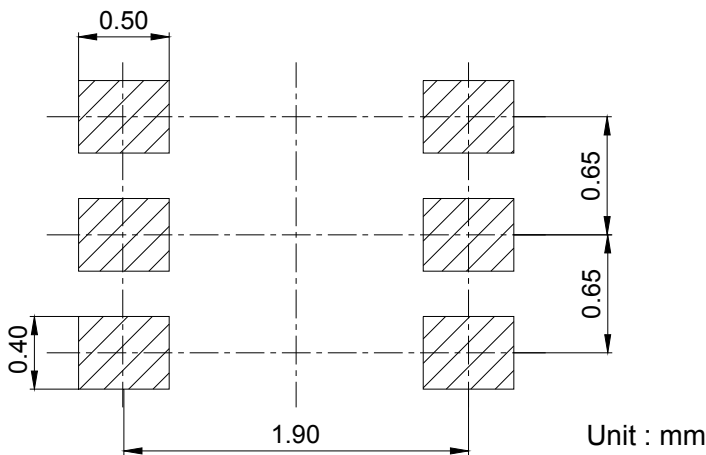
SOT-363



SOT-363		
Dim	Min	Max
A	2.00	2.20
B	1.15	1.35
C	0.95 Typical	
D	0.25 Typical	
E	0.25	0.40
G	0.60	0.70
H	0.02	0.10
J	0.10 Typical	
K	2.2	2.4

All Dimensions in mm

SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
BAV99BRW	SOT-363	3000/Tape&Reel