Elektronische Bauelemente

BAV99BRW

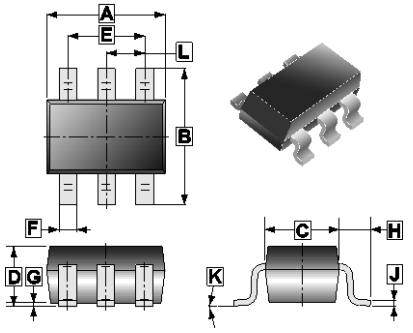
Quad Chips
Surface Mount Switching Diode Array

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Fast Switching Speed
- High Conductance
- For General Purpose Switching Applications
- Surface Mount Package Ideally Suited for Automatic Insertion

SOT-363



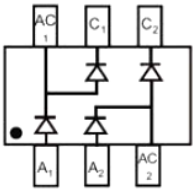
REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.80	2.20	G	0.10 REF.	
B	1.80	2.45	H	0.525 REF.	
C	1.15	1.35	J	0.05	0.25
D	0.70	1.10	K	8°	
E	1.30 REF.		L	0.65 TYP.	
F	0.10	0.35			

MARKING

KGJ

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-363	3K	7 inch



TOP VIEW

ORDER INFORMATION

Part Number	Type
BAV99BRW	Lead (Pb)-free
BAV99BRW-C	Lead (Pb)-free and Halogen-free

ABSOLUTE MAXIMUM RATINGS (T_A=25°C unless otherwise specified)

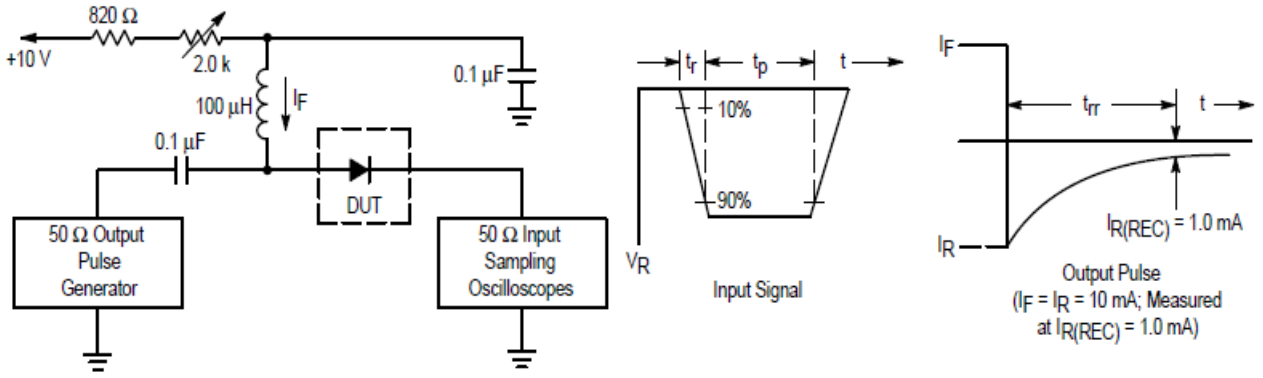
Parameter		Symbol	Ratings	Unit
Reverse Voltage		V_R	75	V
Forward current		I_F	150	mA
Peak Forward Surge Current		$I_{FM(surge)}$	400	mA
Total Device Dissipation FR–5 Board [1]	T_A=25°C	P_D	200	mW
	Derate above 25°C		1.8	mW/°C
Thermal Resistance Junction-Ambient		$R_{\theta JA}$	556	°C/W
Total Device Dissipation Alumina Substrate [2]	T_A=25°C	P_D	250	mW
	Derate above 25°C		2.4	mW/°C
Thermal Resistance Junction-Ambient		$R_{\theta JA}$	417	°C/W
Junction, Storage Temperature Range		T_J, T_{STG}	-55~150	°C

Notes:
1. FR-5=1x0.75x0.062 in.
2. Alumina=0.4x0.3x0.024 in. 99.5% alumina.

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Reverse Breakdown Voltage	$V_{(BR)}$	75	-	-	V	$I_{(BR)}$=100μA
Reverse Voltage Leakage Current	I_R	-	-	30	μA	V_R=25V, T_J=150°C
		-	-	2.5		V_R=70V
		-	-	50		V_R=70V, T_J=150°C
Forward Voltage	V_F	-	-	715	mV	I_F=1mA
		-	-	855		I_F=10mA
		-	-	1000		I_F=50mA
		-	-	1250		I_F=150mA
Diode Capacitance	C_D	-	2	-	pF	V_R=0, f=1MHz
Reverse Recovery Time	T_{RR}	-	4	-	nS	I_F=I_R=10mA, $I_{R(REC)}$=1mA(Figure 1) R_L=100Ω

RATINGS AND CHARACTERISTIC CURVES



Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current (I_F) of 10 mA.
2. Input pulse is adjusted so $I_{R(peak)}$ is equal to 10 mA.
3. $t_p \gg t_{rr}$

Figure 1. Recovery Time Equivalent Test Circuit

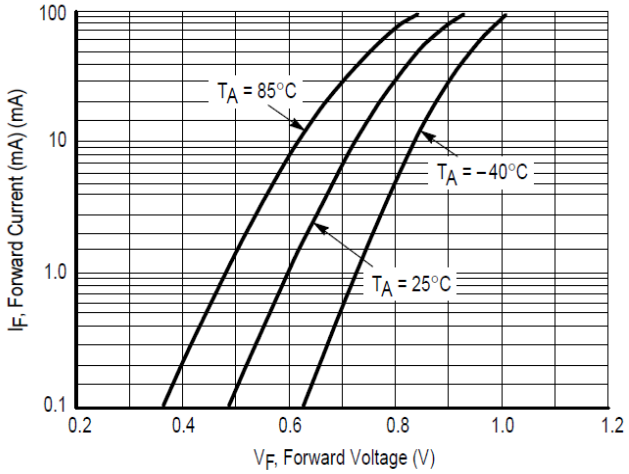


Figure 2. Forward Voltage

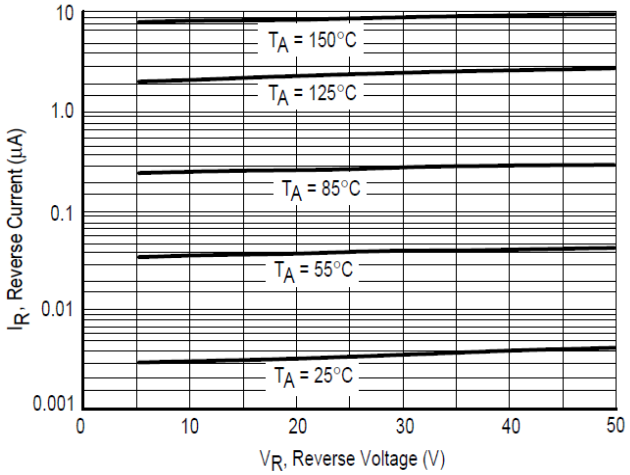


Figure 3. Leakage Current

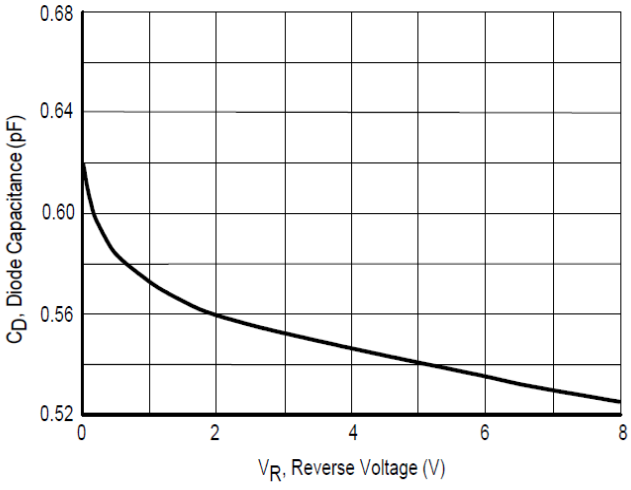
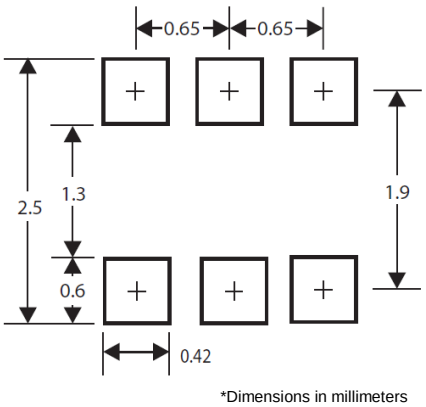


Figure 4. Capacitance



*Dimensions in millimeters

Figure 5. Mounting Pad Layout