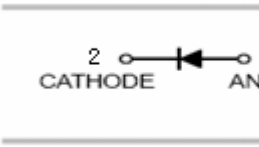
DSK Diode Semiconductor Korea

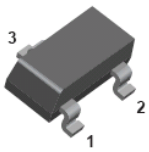
Surface mount switching diode **BAL99**

FEATURES

- Fast switching.

Lead-free





SOT-23

APPLICATIONS

- High speed switching application.

ORDERING INFORMATION

Type No.	Marking	Package Code
BAL99	JF	SOT-23

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Characteristic	**Symbol**	**Limits**	**Unit**
Continuous Reverse Voltage	V_R	70	V
Peak Forward Current	I_F	100	mA
Power Dissipation	P_d	300	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	417	℃/W
Operating Junction Temperature Range	T_j	125	℃
Storage Temperature Range	T_{STG}	-55 to +125	℃

ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Characteristic	**Symbol**	**Min**	**MAX**	**UNIT**	**Test Condition**
Reverse Breakdown Voltage	$V_{(BR)R}$	70	-	V	I_R= 100μA
Forward Voltage	V_F	-	715 855 1000 1250	mV	I_F=1mA I_F=10mA I_F=50mA I_F=150mA
Reverse Leakage Current	I_R	-	2.5	μA	V_R=70V
Diodes Capacitance	C_d	-	1.5	pF	V_R=0V,f=1.0MHz
Reverse Recovery Time	t_{rr}	-	6.0	ns	I_F=I_R=10mA,I_{rr}=0.1*I_R R_L=100Ω

Surface mount switching diode **BAL99**

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

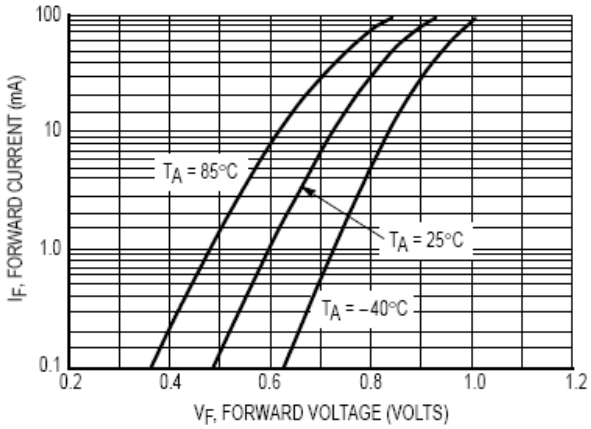


Figure 1. Forward Voltage

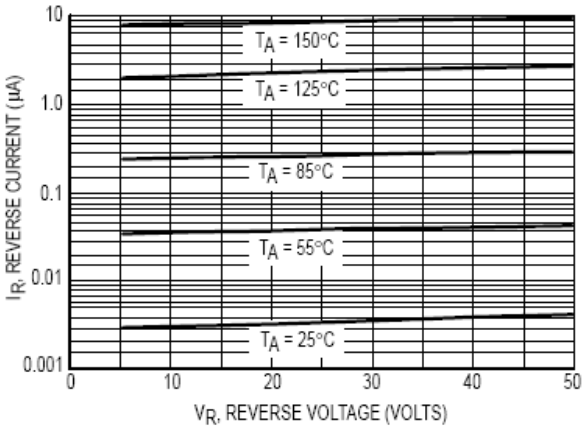


Figure 2. Leakage Current

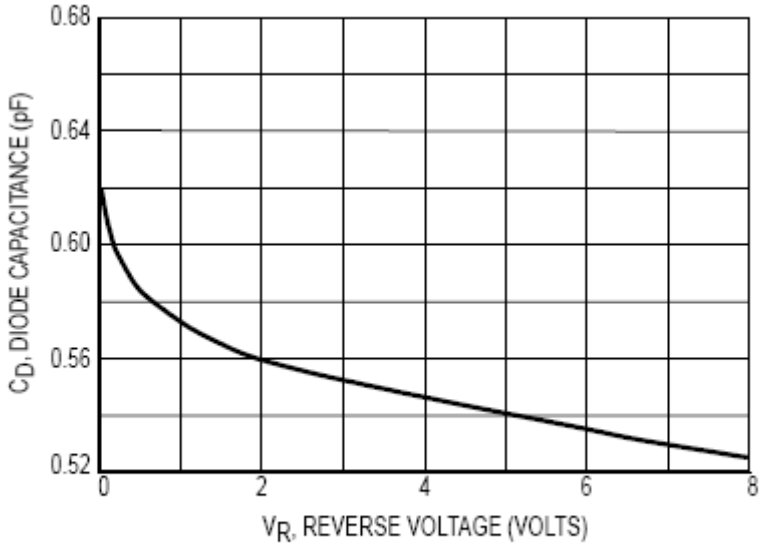


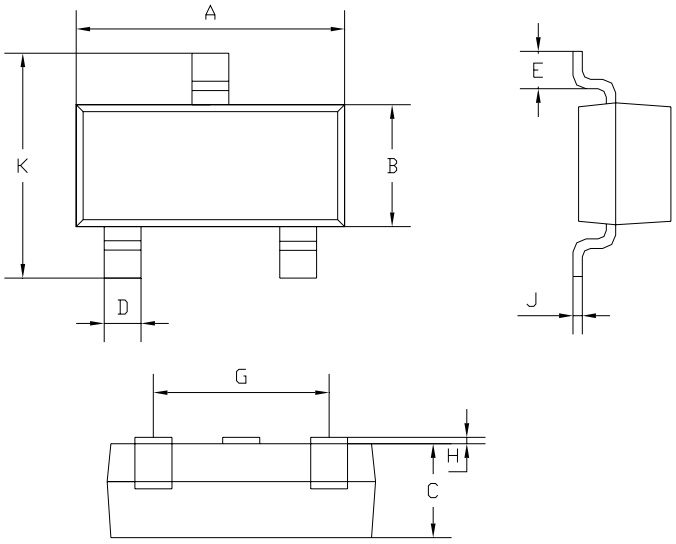
Figure 3. Capacitance

Diode Semiconductor Korea

Surface mount switching diode **BAL99**

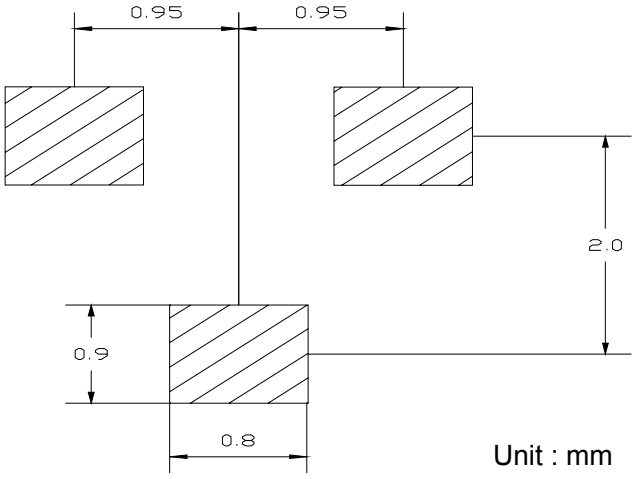
PACKAGE OUTLINE

Plastic surface mounted package SOT-23



SOT-23		
Dim	Min	Max
A	2.85	2.95
B	1.25	1.35
C	1.0Typical	
D	0.37	0.43
E	0.35	0.48
G	1.85	1.95
H	0.02	0.1
J	0.1Typical	
K	2.35	2.45
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
BAL99	SOT-23	3000/Tape&Reel