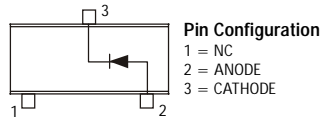
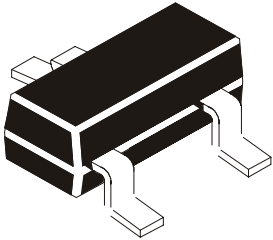


**SILICON PLANAR SWITCHING DIODE**

**BAL99  
SOT-23**



**MARKING- TF**

**ABSOLUTE MAXIMUM RATINGS**

DESCRIPTION	SYMBOL	VALUE	UNIT
Continuous Reverse Voltage	VR	70	V
Peak Forward Current	IF	100	mA
Total Device Dissipation FR-5 Board* Ta=25 deg C	PD	225	mW
Derate Above=25 deg C		1.80	mW/deg C
Thermal Resistance Junction to Ambient	Rth(j-a)	556	deg C/W
Total Device Dissipation Alumina Substrate,** Ta=25 deg C	PD	300	mW
Derate Above=25 deg C		2.40	mW/deg C
Thermal Resistance Junction to Ambient	Rth(j-a)	417	deg C/W
Junction & Storage Temperature	Tj, Tstg	-55 to +150	deg C

\*FR-5=1.0 x 0.75 x 0.062 in.

\*\* Alumina= 0.4 x 0.3 x 0.024 in 99.5% alumina

**ELECTRICAL CHARACTERISTICS (Ta=25 deg C Unless otherwise noted)**

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Reverse Voltage Leakage Current	IR	VR=70V	-	-	2.50	uA
		VR=25V, Tj=150 deg C	-	-	30	uA
		VR=70V, Tj=150 deg C	-	-	50	uA
Reverse Breakdown Voltage	V(BR)	IR=100uA	70	-	-	V
Forward Voltage	VF	IF=1.0mA	-	-	715	mV
		IF=10mA	-	-	855	mV
		IF=50mA	-	-	1000	mV
		IF=150mA	-	-	1250	mV
Recovery Current	QS	IF=10mA, VR=5V, RL=500 ohms	-	-	45	pC
Diode Capacitance	CD	VR=0V, f=1MHz	-	-	1.5	pF
Reverse Recovery Time	trr	IF=IR=10mA, RL= 100 ohms measured @ IR=1.0 mA	-	-	6.0	ns
Forward Recovery Voltage	VFR	IF=10mA, tr=20ns	-	-	1.75	V

