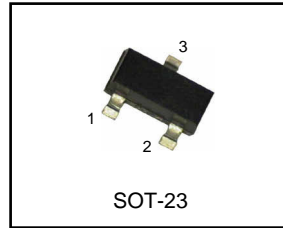


Switching Diode

BAL99



MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Continuous Reverse Voltage	VR	70	Vdc
Peak Forward Current	IF	100	mAdc

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max.	Unit
Total Device Dissipation FR-5 Board ⁽¹⁾ TA=25°C Derate above 25°C	PD	225 1.8	mW mW / °C
Thermal Resistance, Junction to Ambient	R θ JA	556	°C / W
Total Device Dissipation Alumina Substrate, ⁽²⁾ TA=25°C Derate above 25°C	PD	300 2.4	mW mW / °C
Thermal Resistance, Junction to Ambient	R θ JA	417	°C / W
Junction and Storage Temperature	TJ,TSTG	-55 to +150	°C

DEVICE MARKING

BAL99=JF

ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

Characteristic	Symbol	Min.	Max.	Unit
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OFF CHARACTERISTICS

Reverse Breakdown Voltage (IBR=100uAdc)	V(BR)	70	-	Vdc
Forward Voltage (IF=1.0 mAdc) (IF=10 mAdc) (IF=50 mAdc) (IF=150 mAdc)	VF	- - - -	715 855 1000 1250	mVdc
Reverse Voltage Leakage Current (VR=70 Vdc) (VR=25 Vdc, TJ=150°C) (VR=70 Vdc, TJ=150°C)	IR	- - -	2.5 30 50	uAdc
Recovery Current (IF=10 mAdc, VR=5.0 Vdc, RL=500 Ω)	Qs	-	45	pC
Diode Capacitance (VR=0, f=1.0MHZ)	CJ	-	1.5	pF
Reverse Recovery Time (IF=IR=10 mAdc, RL=100 Ω , measured at IR=1.0mAcc)	trr	-	6.0	nS
Forward Recovery Voltage (IF=10 mAdc, tr=20nS)	VFR	-	1.75	Vdc

(1) FR-5=1.0 x 0.75 x 0.062in.

(2) Alumina=0.4 x 0.3 x 0.024in. 99.5% alumina.

FIGURE 1. FORWARD VOLTAGE

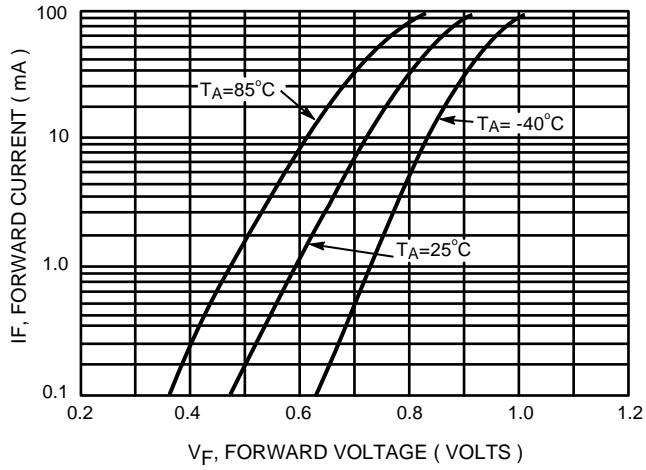


FIGURE 2. LEAKAGE CURRENT

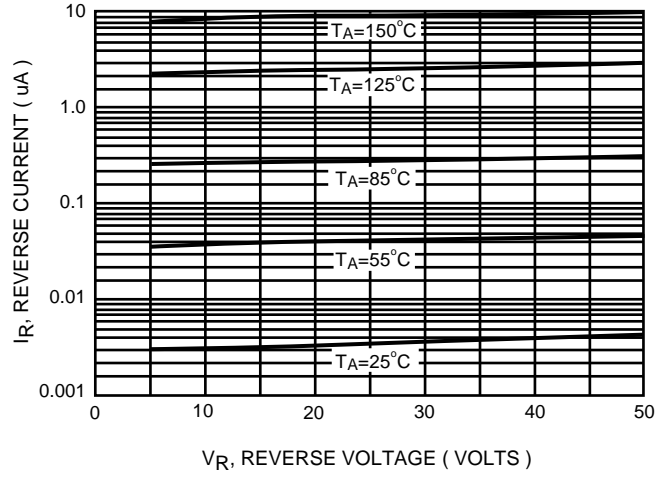


FIGURE 3. CAPACITANCE

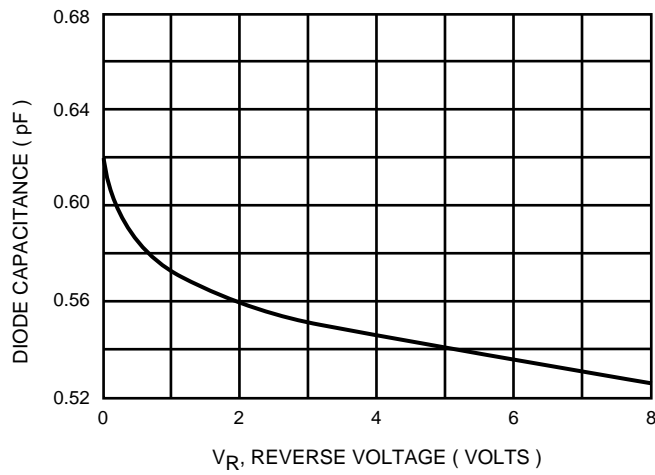


FIGURE 1. FORWARD VOLTAGE

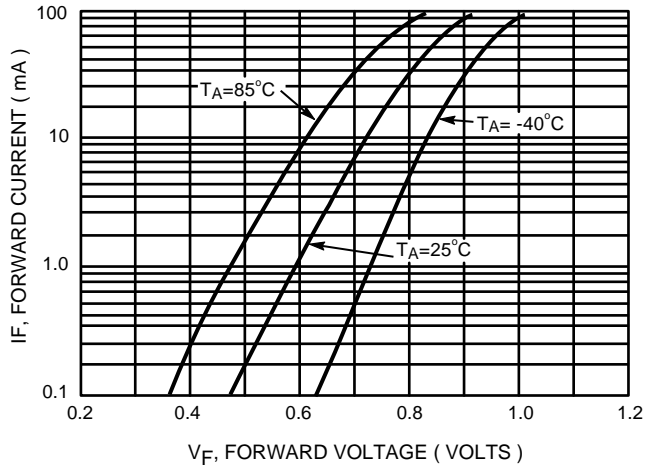


FIGURE 2. LEAKAGE CURRENT

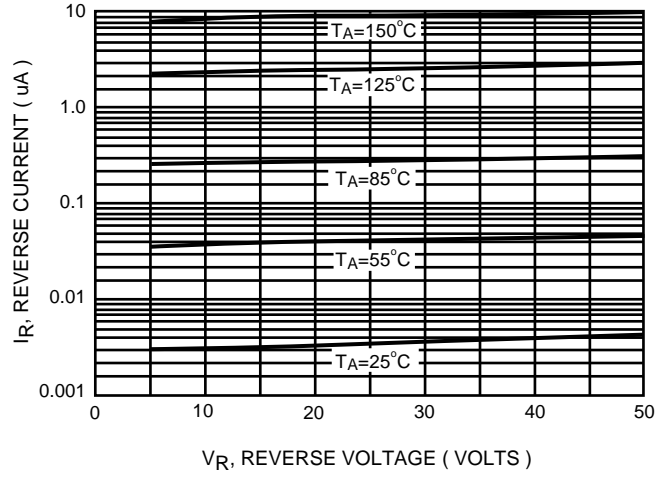


FIGURE 3. CAPACITANCE

