

BAS116TS-AU

Surface Mount, Low Leakage Switching Diodes

VOLTAGE

100 Volt

POWER

200mWatt

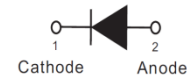
SOD-523

FEATURES

- Surface mount package ideally suited for automatic insertion.
- Very low leakage current 2pA typical at VR=85V.
- Low capacitance 2pF max at VR=0V, f=1MHz
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

- Case : SOD-523 Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx weight : 0.0014 grams



ABSOLUTE RATINGS (each diode)

PARAMETER	Symbol	Value	Units
Reverse Voltage	V_R	85	V
Peak Reverse Voltage	V_{RM}	100	V
Continuous Forward Current	I_F	0.2	A
Non-repetitive Peak Forward Surge Current at t=1.0us	I_{FSM}	4.0	A

THERMAL CHARACTERISTICS

PARAMETER	Symbol	Value	Units
Power Dissipation (Note 1)	P_{TOT}	200	mW
Thermal Resistance, Junction to Ambient (Note 1)	$R_{\theta JA}$	625	°C/W
Junction Temperature	T_J	-55 to 150	°C
Storage Temperature	T_{STG}	-55 to 150	°C

NOTE :

1. FR-5 Board = 1.0 x 0.75 x 0.062 in.

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

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R = 100 \mu A$	85	-	-	V
Reverse Current	I_R	$V_R = 85 V$ $V_R = 85 V, T_J = 150^\circ C$	- -	0.002 8	5 80	nA
Forward Voltage	V_F	$I_F = 1 mA$ $I_F = 10 mA$ $I_F = 50 mA$ $I_F = 150 mA$	- - - -	- - - -	0.9 1.0 1.1 1.25	V
Total Capacitance	C_j	$V_R = 0 V, f = 1 MHz$	-	-	2.0	pF
Reverse Recovery Time	t_{rr}	$I_F = I_R = 10 mA, R_L = 100 \Omega$	-	-	3.0	us

CHARACTERISTIC CURVES (each diode)

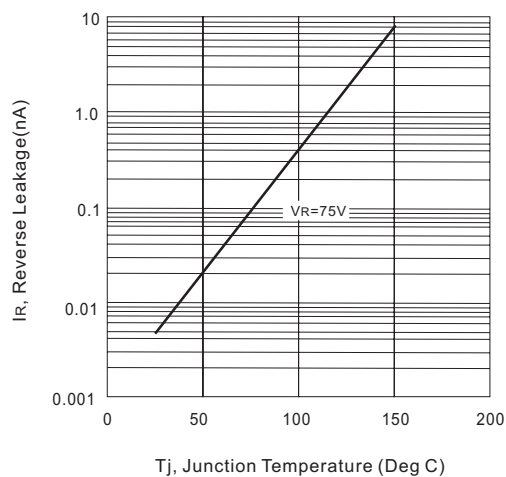


Fig. 1-Reverse Leakage vs. Junction Temperature

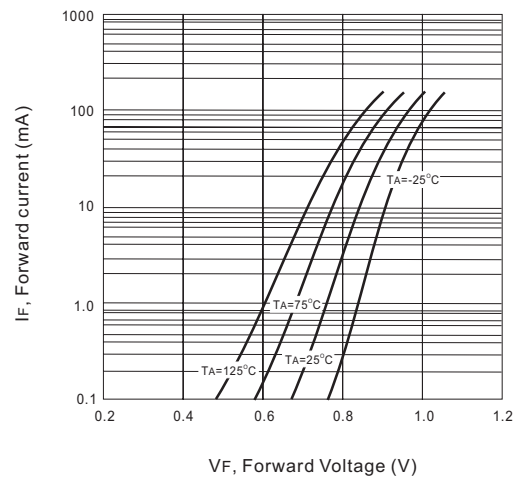


Fig. 2-Forward Current vs. Forward Voltage

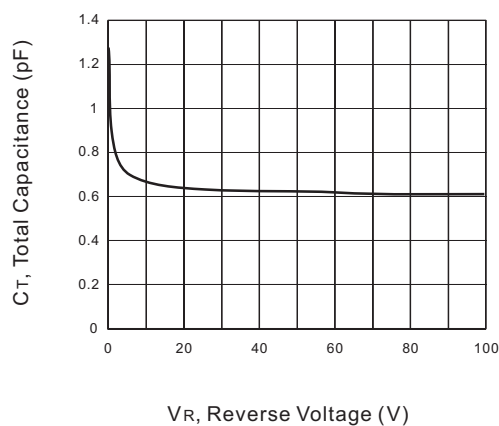


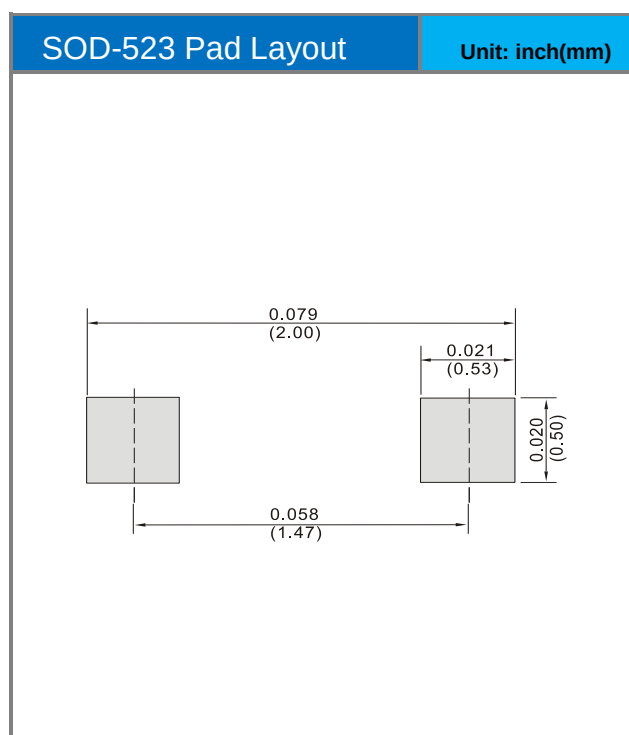
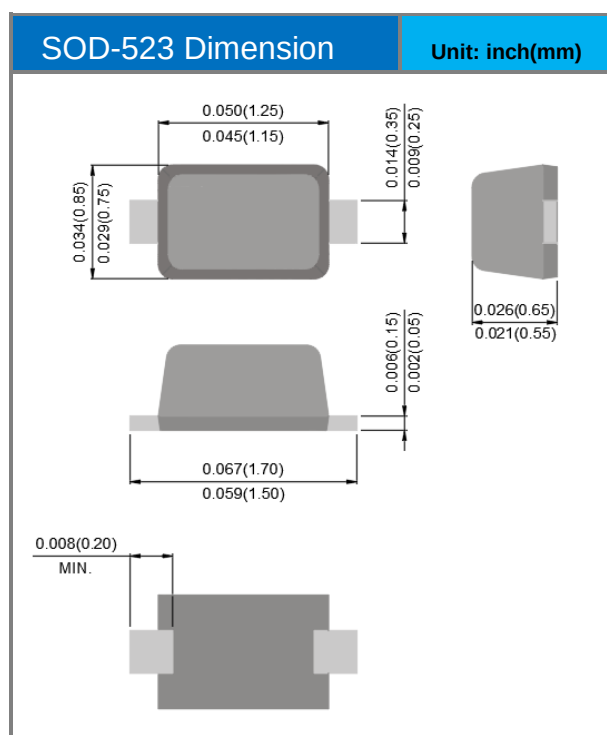
Fig. 3- Total capacitance vs. Reverse Voltage

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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
BAS116TS-AU	SOD-523	5K pcs / 7" reel	PA
BAS116TS-AU	SOD-523	12K pcs / 13" reel	PA

Packaging Information & Mounting Pad Layout



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