

SOD-523 Flat Lead



FEATURES

- Low leakage current
- Fast Switching Time
- Low capacitance
- Small SMD plastic packages

APPLICATIONS

- High-speed switching
- General-purpose switching

Absolute Maximum Ratings at 25°C

Parameter	Symbols	BAS516WT	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Maximum RMS voltage	V_{RMS}	75	V
Continuous Forward Current	I_F	250	mA
Non-repetitive Peak Forward Surge Current at 1s at 1ms at 1us	I_{FSM}	0.5 1 4	A
Total Power Dissipation	P_{tot}	300	mW
Operating and Storage Temperature Range	T_j, T_{slg}	-55 ~ +150	°C

Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbols	BAS516WT	Units
Reverse Breakdown Voltage at $I_R = 1\mu\text{A}$	$V_{(BR)R}$	100	V
Maximum Forward Voltage at 1 m A at 10 m A at 50 m A at 150 m A	V_F	0.715 0.855 1.00 1.25	V
Peak Reverse Current at $V_R = 25\text{V}$ $T_j = 25^\circ\text{C}$ at $V_R = 80\text{V}$ $T_j = 25^\circ\text{C}$ at $V_R = 25\text{V}$ $T_j = 150^\circ\text{C}$ at $V_R = 80\text{V}$ $T_j = 150^\circ\text{C}$	I_R	0.03 0.5 30 50	μA
Typical Junction Capacitance $f = 1\text{MHz}, V_R = 0\text{V}$	C_j	1	pF
Maximum Reverse Recovery Time ⁽¹⁾	t_{rr}	4	ns

(1) Measured with $I_F = 10\text{mA}$, $V_R = 6\text{V}$, $I_{rr} = 0.1\text{A}$, $R_L = 100\Omega$

Fig.1 Power Derating Curve

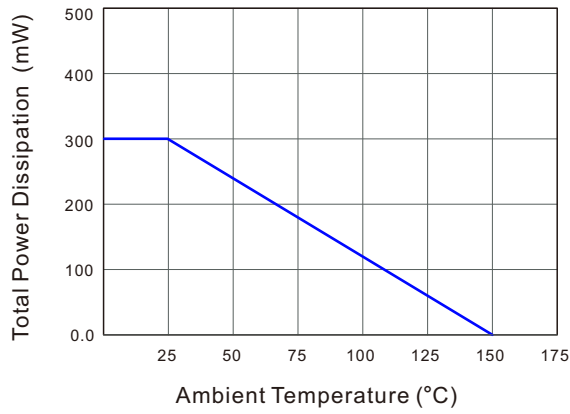


Fig.2 Typical Reverse Characteristics

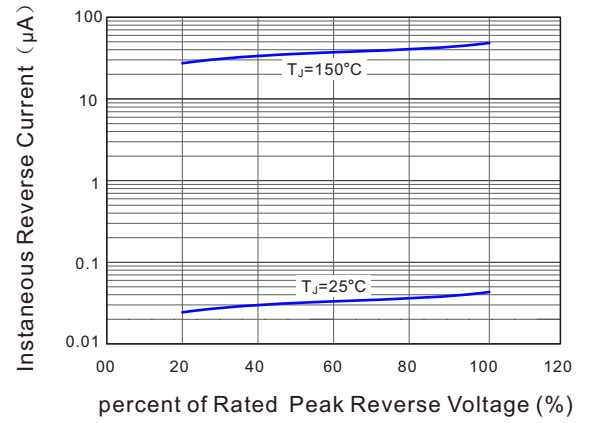


Fig.3 Typical Instantaneous Forward Characteristics

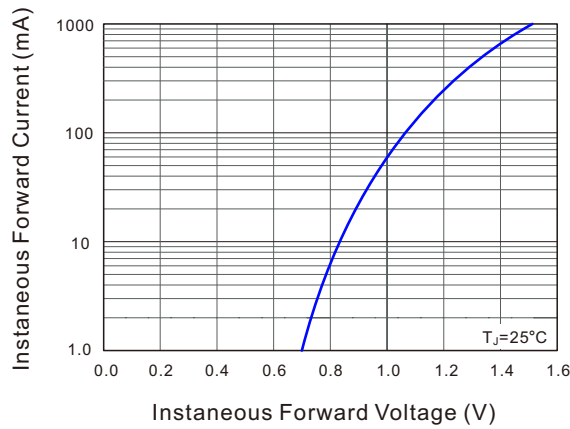
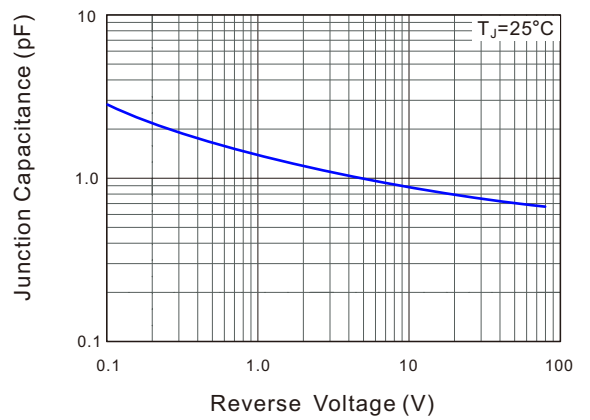


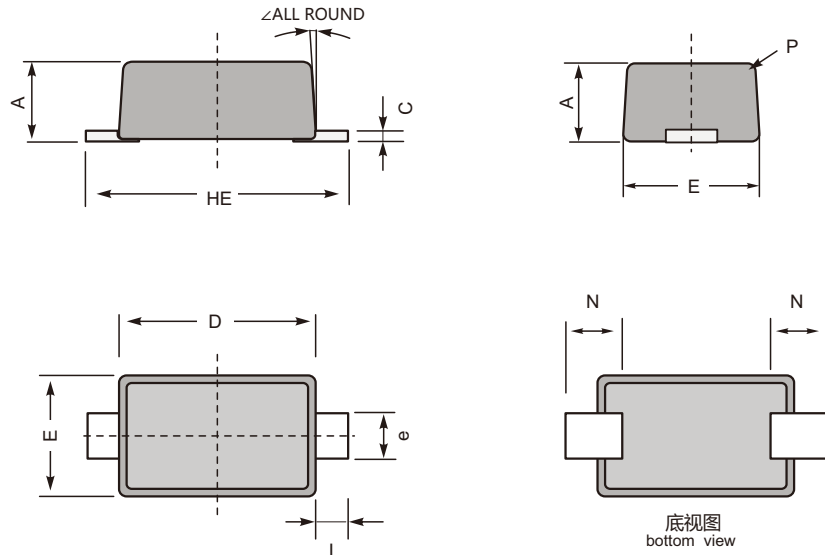
Fig.4 Typical Junction Capacitance



PACKAGE OUTLINE

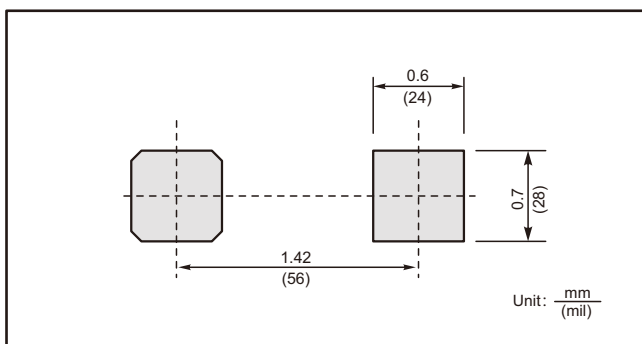
Plastic surface mounted package; 2 leads

SOD-523



UNIT		A	e	C	D	E	HE	N	L	P	∠
mm	max	0.77	0.35	0.15	1.30	0.99	1.70	0.35	0.2	R0.1 ALL ROUND	$10^\circ \pm 1^\circ$
	min	0.51	0.25	0.08	1.10	0.75	1.50	ref	ref		
mil	max	30	14	6	51	39	67	14	8.0	R4.0 ALL ROUND	
	min	20	10	3	43	30	59	ref	ref		

The recommended mounting pad size



Marking

Type number	Marking code
BAS516WT	516