

FEATURES AND BENEFITS

Product Summary		
I_F	250mA	@25 °C
V_F	0.715V	@1mA
V_{RRM}	100V	@25 °C

- For General Purpose Switching Applications
- High Conductance
- RoHS Compliant / Green EMC UL Flammability Classification Rating 94V-0
- Matte Tin (Sn) Lead finish Solderable per MIL-STD-202, Method 208
- Moisture Sensitivity: Level 1 per J-STD-020

SOD-523



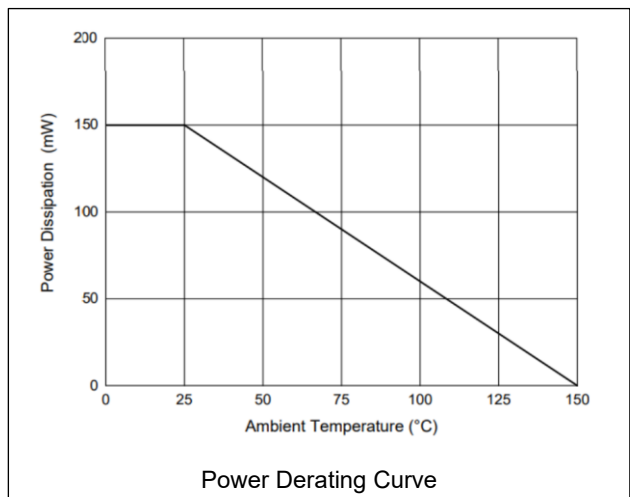
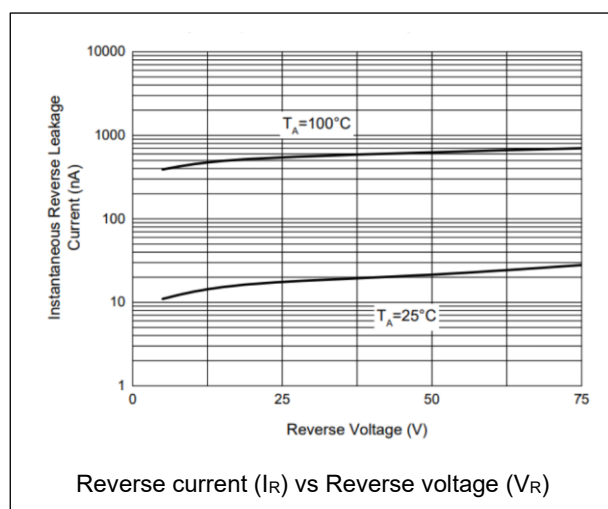
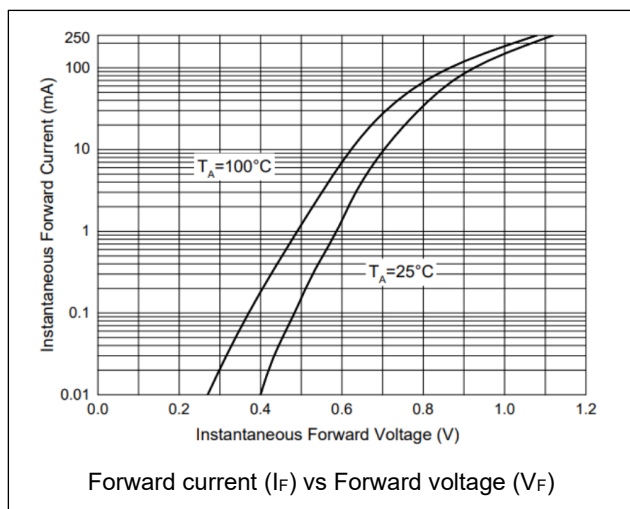
Maximum Ratings (TA = 25 °C unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Working Reverse Voltage	V_{RWM}	100	V
Forward Current	I_F	250	mA
Repetitive Peak Forward Current	I_{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current (@t=8.3ms)	I_{FSM}	2.0	A
Power Dissipation	P_{TM}	150	mW
Junction Temperature	T_J	150	°C
Storage Temperature	T_{STG}	-55 to +150	°C

THERMAL CHARACTERISTICS (TA = 25 °C unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Thermal Resistance from Junction to Ambient*	$R_{\theta JA}$	833	°C/W

* Device mounted on 1"x1" FR4 PCB

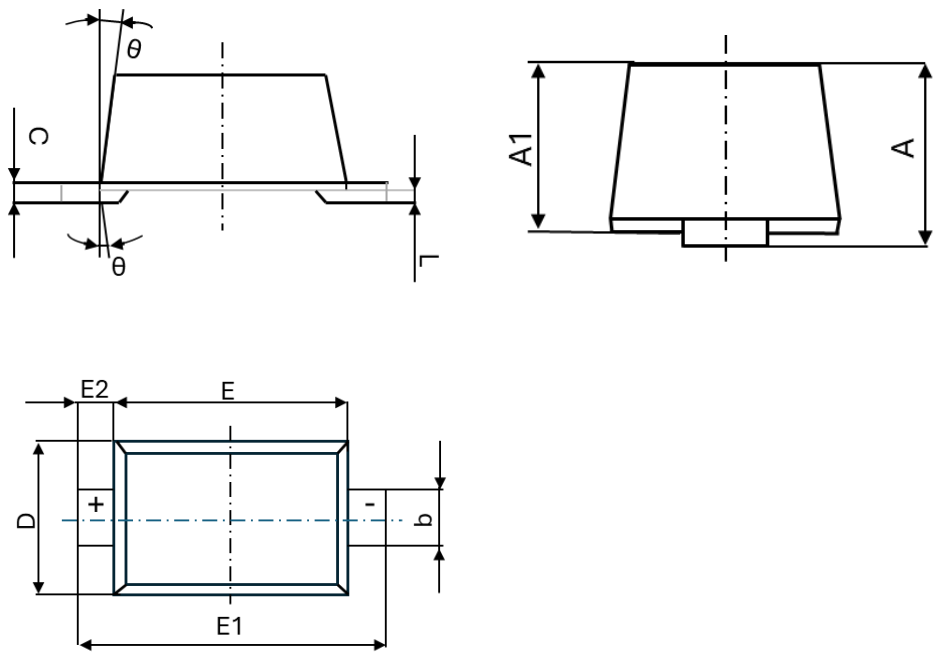
ELECTRICAL CHARACTERISTICS (TA = 25 °C unless otherwise noted)						
PARAMETER	SYMBOL	CONDITION	MIN	TYP	MAX	UNIT
Reverse Voltage	V_R	$I_R = 100\mu A$	100			V
Forward Voltage	V_F	$I_F = 1mA$			0.715	V
		$I_F = 10mA$			0.855	
		$I_F = 50mA$			1.00	
		$I_F = 150mA$			1.25	
Reverse Current	I_R	$V_R = 25V$			30	nA
		$V_R = 80V$			0.5	μA
		$V_R = 100V$			5	μA
Capacitance	C_T	$V_R = 0V, f = 1MHz$		1.0		pF
Reverse Recovery Time	t_{rr}	$I_F = I_R = 10mA, V_R = 0V, R_L = 100\Omega$			4	ns

RATING AND CHARACTERISTICS CURVES



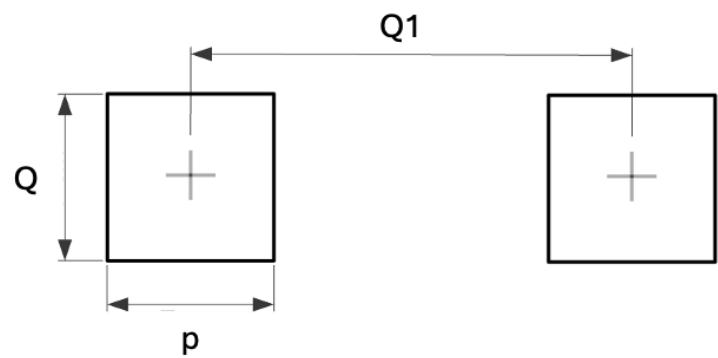
PACKAGE OUTLINE DIMENSIONS

SOD-523



Symbol	MIN	MAX
A	0.51	0.77
A1	0.50	0.70
b	0.25	0.35
c	0.08	0.15
D	0.75	0.85
E	1.10	1.30
E1	1.50	1.70
E2	0.20REF.	
L	0.01	0.07
θ	7°REF.	
Unit: mm		

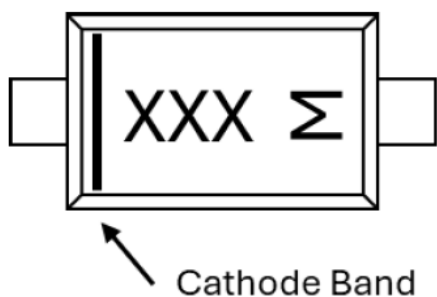
SUGGESTED PAD LAYOUT



Symbol	Type
Q1	1.42
Q	0.7
p	0.6
Unit: mm	

DEVICE MARKING CODE AND ORDERING INFORMATION

DEVICE	Marking	Quantity	Packing
BAS516	61	8000/7"Reel	Tape & Reel



XXX: Product Marking Code

Σ : Date Code (Rotate 90° counterclockwise)

Odd Year	Even Year
1	E
2	F
3	H
4	J
5	K
6	L
7	N
8	P
9	U
T	X
V	Y
C	Z

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