

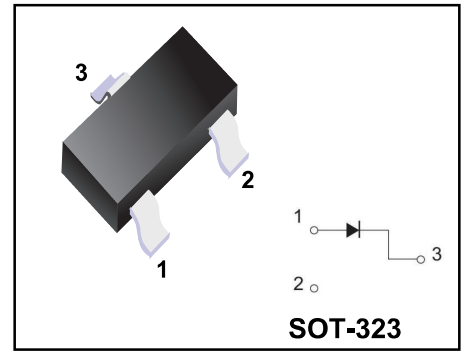
**Small-Signal Fast Switching Diodes**

**FEATURES**

- ◆Case: SOT-323
- ◆Epoxy meets UL-94 V-0 flammability rating and halogen free
- ◆Moisture Sensitivity Level 3
- ◆High temperature soldering guaranteed 260°C/10seconds at terminals

**APPLICATION**

- ◆Extreme fast switches
- ◆Automotive



<b>Marking Code</b>	
<b>BAS16-W</b>	<b>A2</b>

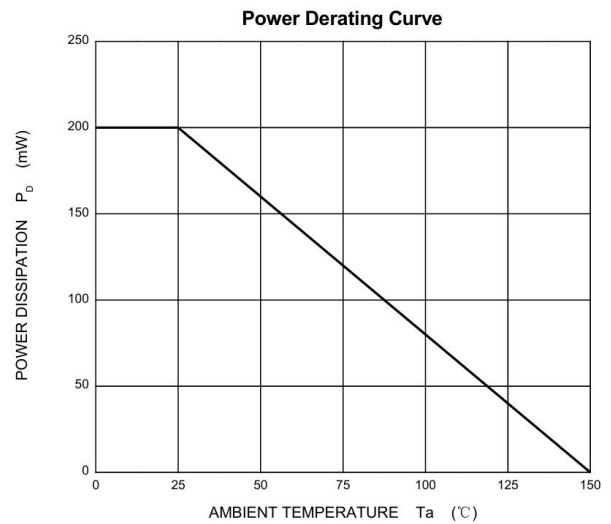
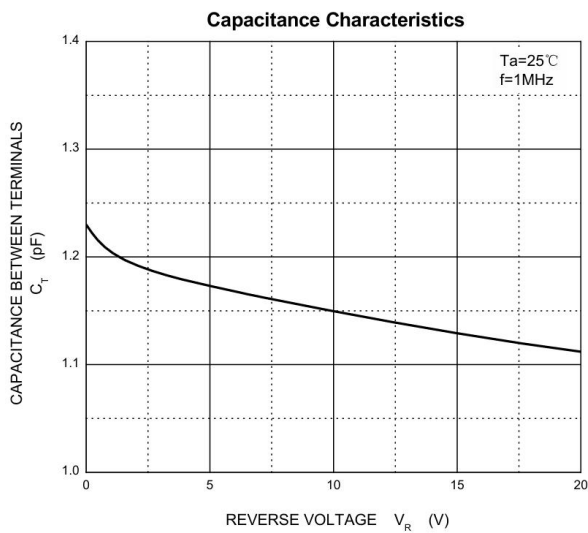
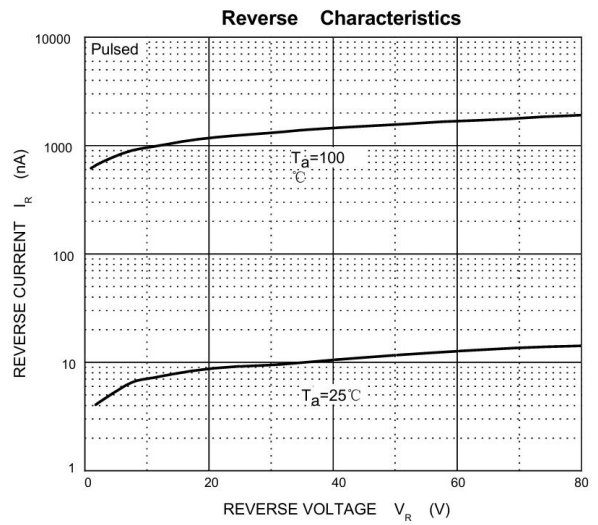
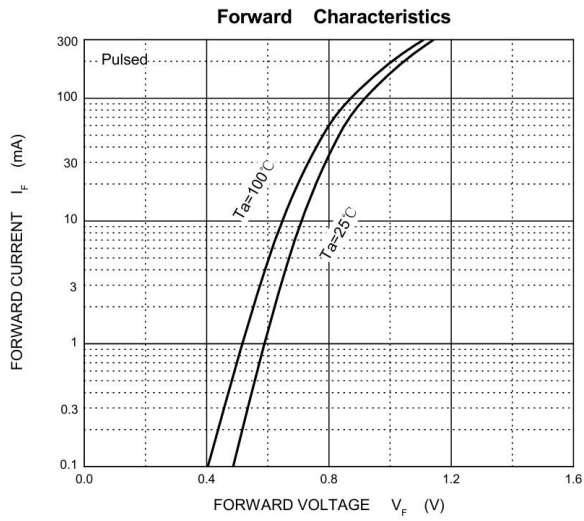
**Absolute Maximum Ratings (Ta=25°C unless otherwise noted)**

Parameter	Symbols	Value	Units
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	100	V
Peak Repetitive Peak Reverse Voltage	$V_{RRM}$	75	V
Working Peak Reverse Voltage	$V_{RWM}$		
DC Blocking Voltage	$V_R$		
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current	$I_{FM}$	300	mA
Average Rectified Output Current	$I_O$	150	mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms	$I_{FSM}$	2.0	A
Power Dissipation	$P_D$	200	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	625	°C/W
Operation Junction and Storage Temperature Range	$T_J, T_{STG}$	-55-+150	°C

**Electrical Characteristics (Ta=25°C unless otherwise noted)**

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Reverse breakdown voltage	$I_R=10\mu A$	$V_R$	75			V
Maximum forward voltage	$I_F=1mA$	$V_{F1}$			0.715	V
	$I_F=10mA$	$V_{F2}$			0.855	
	$I_F=50mA$	$V_{F3}$			1.0	
	$I_F=150mA$	$V_{F4}$			1.25	
Maximum reverse current	$V_R=75V$	$I_{R1}$			1	$\mu A$
	$V_R=20V$	$I_{R2}$			25	nA
Type junction capacitance	$V_R=0V, f=1MHz$	$C_T$			2	pF
Reverse Recovery time	$I_F=I_R=10mA, I_{rr}=0.1X I_R, R_L=100\Omega$	$t_{rr}$			4	ns

Typical Characteristics



**Ordering information**

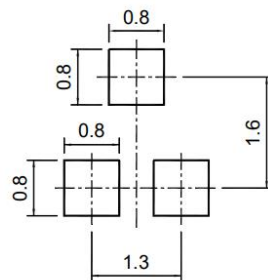
Package	Packing Description	Base Quantity	Packing Quantity
SOT-323	Tape/Reel,7"reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

**Package Dimensions**

**SOT-323**

Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	0.8	1.1	32	43
A1	0.1		4	
bp	0.3	0.4	12	16
C	0.10	0.25	4	10
D	1.8	2.2	71	87
E	1.15	1.35	45	53
e	1.3		51	
e1	0.65		26	
HE	2.0	2.2	79	87
Lp	0.15	0.45	6	18
Q	0.13	0.23	5.1	9
v	0.2		8	
W	0.2		8	

**The recommended mounting pad size**



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