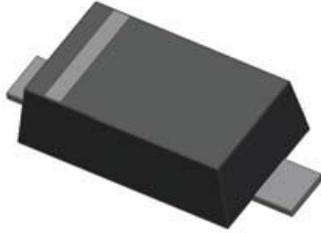


## Schottky Barrier Diode



### Features

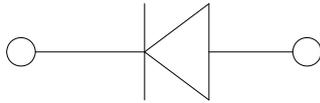
- $V_R$  40V
- $I_F$  200mA

### Typical Applications

- Low Forward Voltage Drop

### Mechanical Data

- **Package:** SOD523
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end
- **Marking:** 43



### ■ Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	Limit Max
Power Dissipation	$P_D$	mW		150
Storage Temperature	$T_{STG}$	°C		-55 to +150
Junction Temperature	$T_J$	°C		125
DC Reverse Voltage	$V_R$	V		40
Average Rectified Forward Current	$I_{FAV}$	mA		200
Repetitive Peak Forward Current	$I_{FRM}$	A	$t_p=1ms, \delta=0.25$	1

### ■ Electrical Characteristics ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

Item	Symbol	Unit	Conditions	Min	Max
Breakdown Voltage	$V_R$	V	$I_R=100\mu\text{A}$	40	
Reverse Leakage Current	$I_R$	nA	$V_R=30\text{V}$		200
Forward Voltage	$V_F$	V	$I_F=1\text{mA}$		0.38
			$I_F=40\text{mA}$		1
Reverse Recovery Time	$T_{rr}$	ns	$I_F=I_R=10\text{mA}$ to $I_R=1\text{mA}, R_L=100\Omega$		5
Capacitance	$C_j$	pF	$V_R=0\text{V}, f=1\text{MHZ}$		4

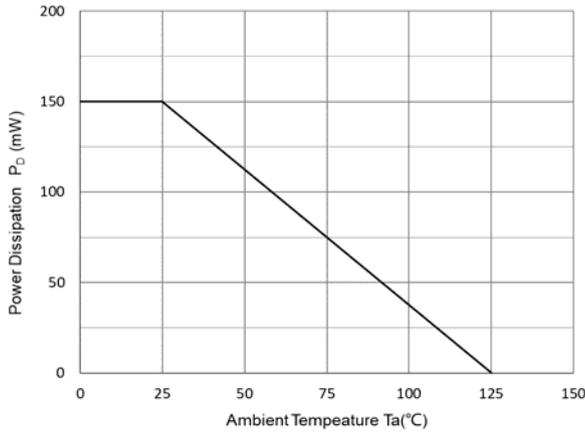
### ■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BAS40X	F2	Approximate 0.0025	8000	80000	320000	7" reel

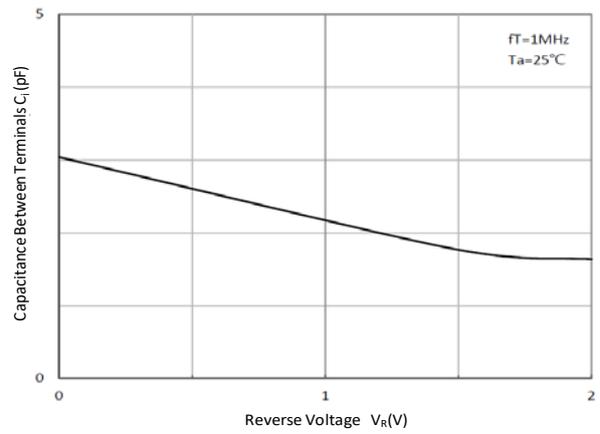


## ■ Characteristics(Typical)

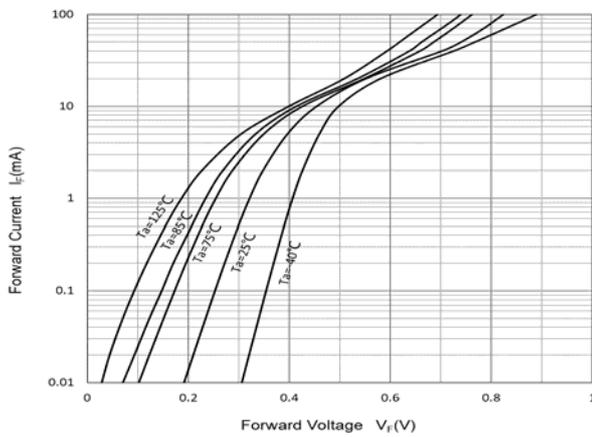
**Fig 1: P<sub>D</sub>-T<sub>a</sub> Curve**



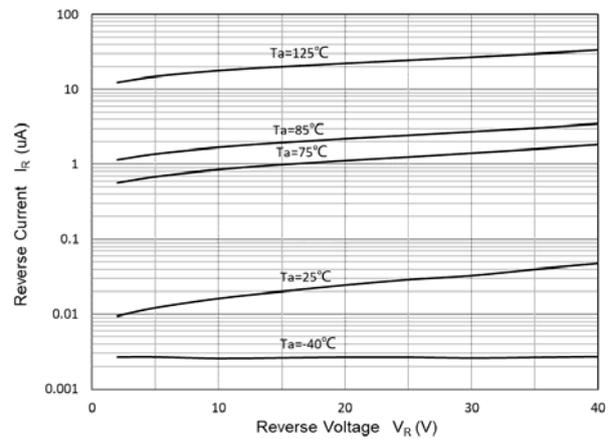
**Fig 2: Capacitance Capability**



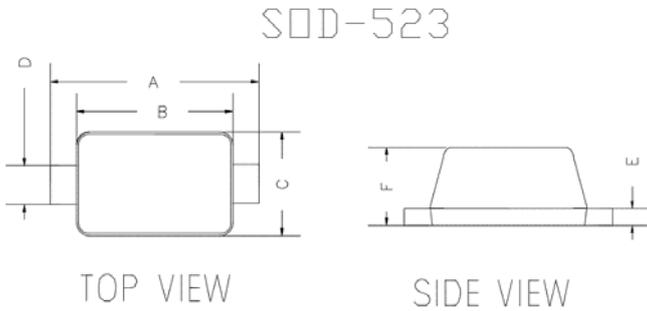
**Fig 3: Typical Forward Characteristics**



**Fig 4: Typical Reverse Characteristics**



## ■ Outline Dimensions

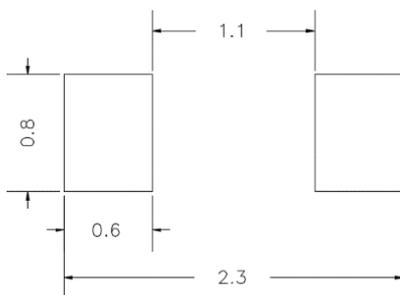


DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.059	0.067	1.500	1.700
B	0.043	0.051	1.100	1.300
C	0.028	0.035	0.700	0.900
D	0.010	0.014	0.250	0.350
E	0.002	0.008	0.050	0.200
F	0.020	0.028	0.500	0.700

**Note:**

- All dimensions are in millimeters (mm) unless otherwise specified.  
[所有尺寸均以毫米为单位, 除非另有说明]
- General tolerances:  $\pm 0.10\text{mm}$  unless otherwise specified.  
[通用公差为 $\pm 0.10\text{mm}$ , 除非另有说明]
- Dimensions and tolerances per ASME Y14.5M-2018.  
[尺寸和公差遵循 ASME Y14.5M-2018 标准]
- All dimensions shown are exclusive of burrs and gate residues.  
Burrs and gate vestiges shall not exceed 0.15 mm in maximum.  
[所有尺寸均不包括毛刺和浇口残留。毛刺与浇口残留的尺寸最大不得超过 0.15mm]
- Dimension b does not include dambar protrusion of max 0.100 mm per side.  
[尺寸b不包括单边最大0.100 MM的中筋凸出部分]
- Dimensions B and C are the overall extreme outer dimensions of the mold compound. These dimensions exclude mold flash, lead flash, protrusions and burrs but include the maximum allowable mold mismatch.  
[B和C是塑封体的外部极限尺寸, 不包括包封溢料、内引线溢料、凸出部分以及胶体毛刺, 但是包含了包封错位的最大尺寸]
- Formed leads shall be planar with respect to one another within a maximum of 0.076 mm relative to the seating plane.  
[成型的管脚应为同一平面, 共面性最大为0.1mm]

## ■ Soldering Footprint



UNIT : mm

SUGGESTED SOLDER PAD LAYOUT



# BAS40X

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