

## Schottky Barrier Rectifier

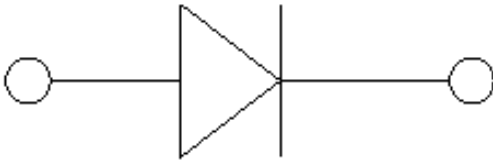


### Features

- $V_R$  20V
- $I_{FAV}$  0.5A
- For Surface Mount Application and High Current Capability
- Moisture Sensitivity Level 1

### Mechanical Data

- **Package:** SOD323
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end
- **Marking:** R2



### ■Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	Conditions	VALUE
Repetitive peak reverse voltage	$V_{RRM}$	V		20
Reverse voltage	$V_R$	V	$I_R=0.2mA$	20
Average forward current	$I_{FAV}$	A		0.5
Power Dissipation	$P_D$	mW		200
Maximum junction temperature	$T_j$	°C		125
Storage temperature range	$T_{slg}$	°C		-55 to +150

### ■Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	Conditions	Min	Max
Forward voltage	$V_F$	V	$I_F=0.5A$ ,	-	0.45
Reverse current	$I_R$	uA	$V_R=20V$	-	250
Breakdown voltage	$V_{(BR)}$	V	$I_R=0.2mA$	20	-
Diode capacitance	$C_D$	pF	$V_R=0V, f=1MHz$		170

### ■Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
B0520WS	F2	Approximate 0.0048	3000	30000	120000	7" reel



■ Characteristics (Typical)

Fig 1:  $P_D$ - $T_a$  Curve

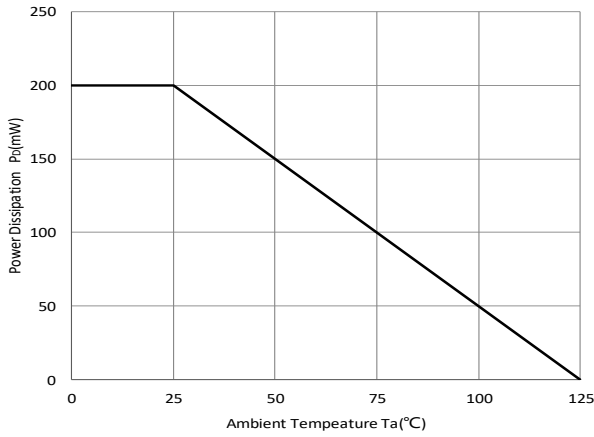


Fig 2: Capacitance Capability

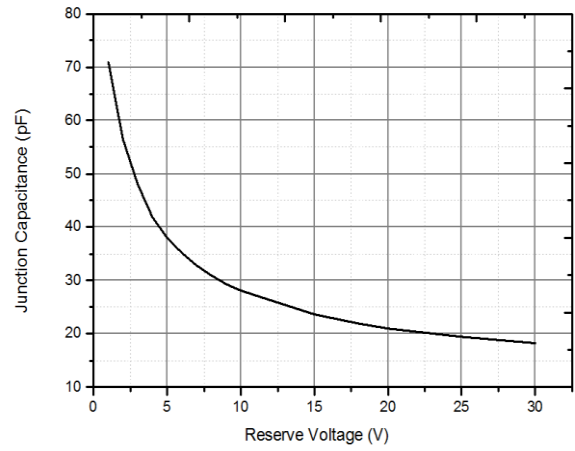


Fig 3: Typical Forward Characteristics

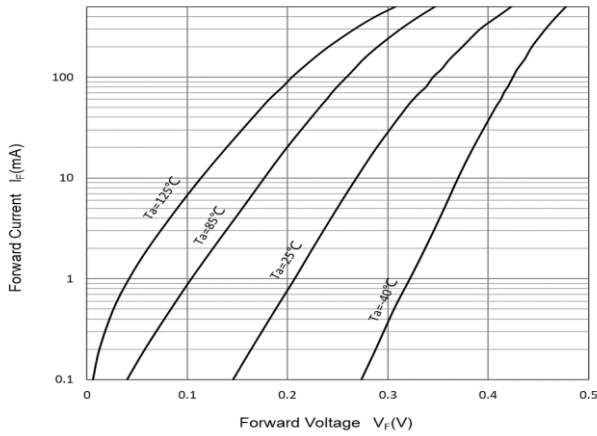
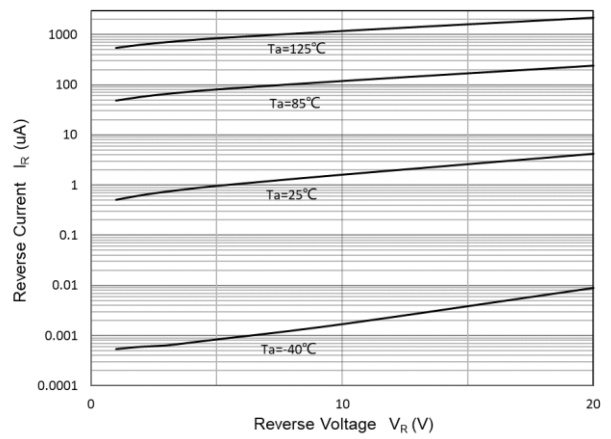
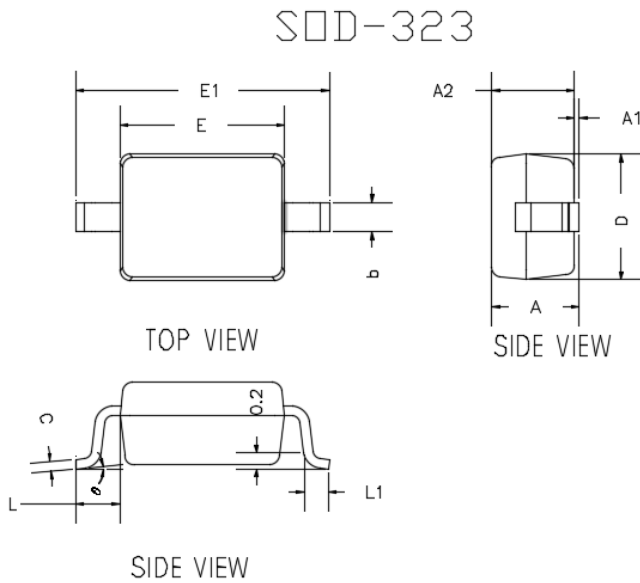


Fig 4: Typical Reverse Characteristics





## ■Outline Dimensions

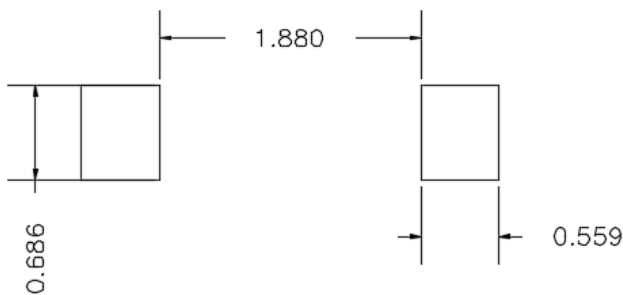


DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	---	0.0393	---	1.0000
A1	0.0000	0.0039	0.0000	0.1000
A2	0.0314	0.0354	0.8000	0.9000
b	0.0098	0.0157	0.2500	0.4000
c	0.0031	0.0059	0.0800	0.1500
D	0.0472	0.0551	1.2000	1.4000
E	0.0629	0.0709	1.6000	1.8000
E1	0.0984	0.1063	2.5000	2.7000
L	0.0187TYP		0.475TYP	
L1	0.0098	0.0157	0.250	0.400
e	0°	8°	0°	8°

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 D and E 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.  
[D和E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



## B0520WS

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