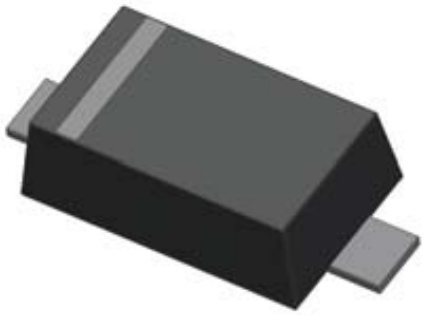
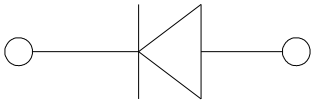
Schottky Barrier Diode





Features

- Moisture sensitivity level 1
- Reverse voltage: 100V
- Average forward current : 200mA

Application

- High frequency and low voltage rectifier

Mechanical data

- **Package**: SOD-523
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102

■ **Maximum Ratings** (T_a=25℃ Unless otherwise specified)

Parameter	Symbol	Unit	Value
Device marking code			41
Reverse voltage	V_R	V	100
Forward current	I_F	mA	200
Non-repetitive surge peak forward current @ t=10ms	I_{FSM}	A	1
Repetitive Peak Forward Current@ tp=1ms, δ=0.25	I_{FRM}	A	0.5
Power dissipation	P_D	mW	150
Junction temperature	T_J	℃	-65 to +150
Storage temperature	T_{STG}	℃	-65 to +150

■ Electrical Characteristics (Ta=25℃ Unless otherwise specified)

Parameter	Symbol	Unit	Conditions	Min	Typ	Max
Breakdown voltage	V_R	V	I_R=100uA	100		
Forward voltage	V_F	V	I_F=1mA			0.45
			I_F=200mA			1
Reverse leakage current	I_R	uA	V_R=50V			0.1
Junction Capacitance	C_J	pF	VR =1V, f =1MHz			10
Reverse Recovery Time	T_{rr}	ns	IF=IR=10mA, Irr=0.1*IR,RL=100Ω			4

■ Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	$R_{\theta J-A}$(1)	℃/W	667
Thermal resistance, junction-to-case	$R_{\theta J-C}$(1)	℃/W	533

Note:

（1）Thermal resistance from junction to ambient and from junction to case mounted on P.C.B. with 8mm*9mm copper pad areas

■Characteristics

Fig 1：P_D-Ta Curve

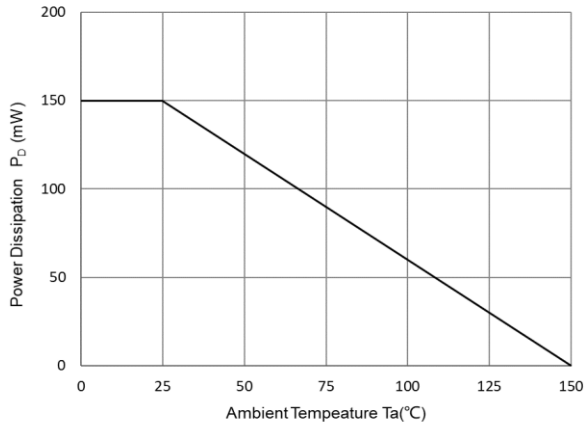


Fig 2：Capacitance Capability

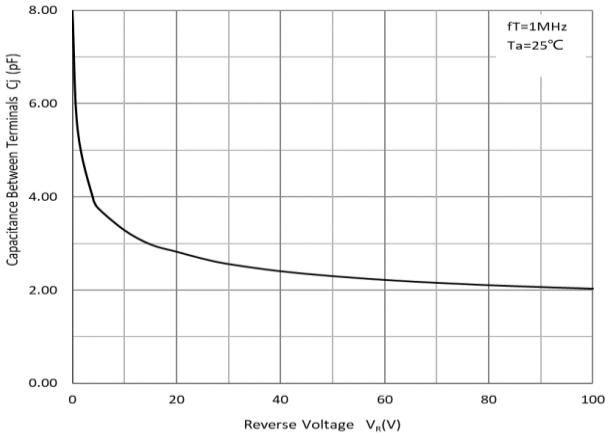


Fig 3：Typical Forward Characteristics

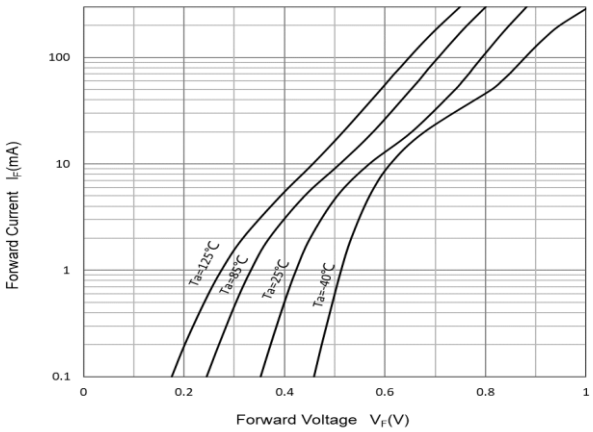
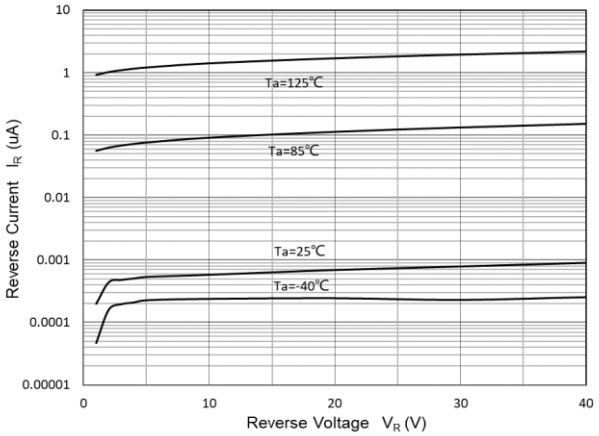


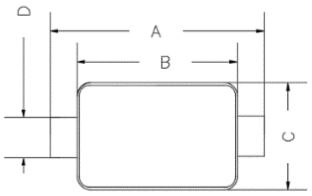
Fig 4：Typical Reverse Characteristics



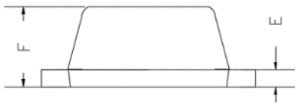
■Ordering Information

Preferred P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity(pcs)	Delivery mode
BAT41WX	F2	Approximate 0.002	8000	80000	320000	7” reel
BAT41WX	F3	Approximate 0.002	3000	30000	120000	7” reel

■ Outline Dimensions



TOP VIEW

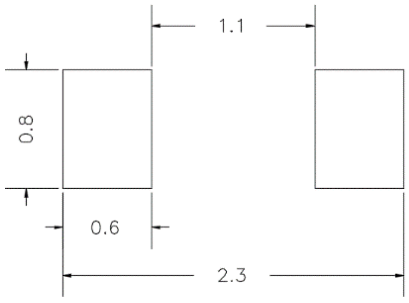


SIDE VIEW

DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MN	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:
1. 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]
2. General tolerances: ±0.10mm unless otherwise specified.
[通用公差为±0.10mm，除非另有说明]
3. Dimensions and tolerances per ASME Y14.5M-2018.
[尺寸和公差遵循 ASME Y14.5M-2018 标准]
4.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]
5.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]
6.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]
7.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]

■ Suggested Pad Layout



UNIT: mm

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