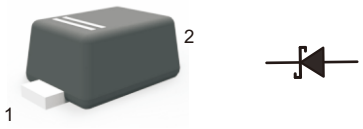
SCHOTTKY BARRIER RECTIFIERS

FEATURES

- Metal silicon junction, majority carrier conduction
- Guarding for overvoltage protection
- Low power loss, high efficiency
- High current capability
- low forward voltage drop
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Simplified outline SOD-523 and symbol

MECHANICAL DATA

- Case: SOD-523
- Terminals: Solderable per MIL-STD-750, Method 2026

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbols	B5819WT SL	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Maximum RMS voltage	V_{RMS}	28	V
Maximum DC Blocking Voltage	V_{DC}	40	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1	A
Power dissipation	P_D	250	mW
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load (JEDEC method)	I_{FSM}	5	A
Maximum Instantaneous Forward Voltage at 1 A	V_F	0.6	V
Maximum Instantaneous Reverse Current at Rated DC Reverse Voltage Tj = 25°C Tj = 100°C	I_R	1 10	mA
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	400	°C/W
Typical Junction Capacitance V_R=4V,f=1MHz	C_j	120	pF
Storage and Operating Junction Temperature Range	T_j , T_{stg}	-55 ~ +125	°C

Typical Performance Characteristics

Fig.1 Power Derating Curve

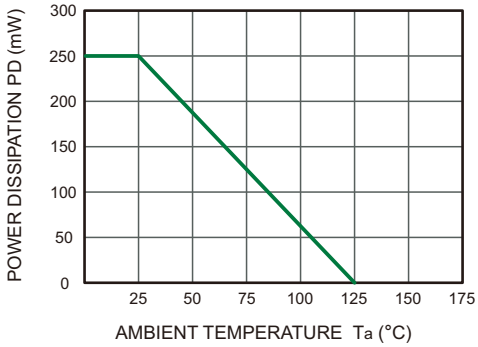


Fig.2 Typical Reverse Characteristics

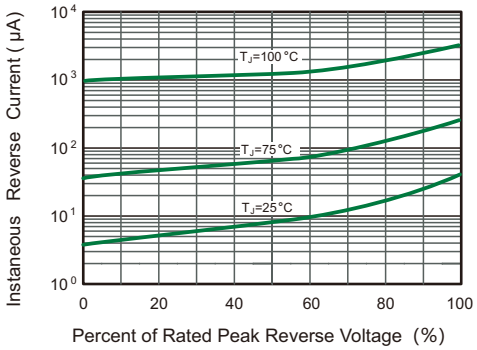


Fig.3 TYPICAL FORWARD VOLTAGE

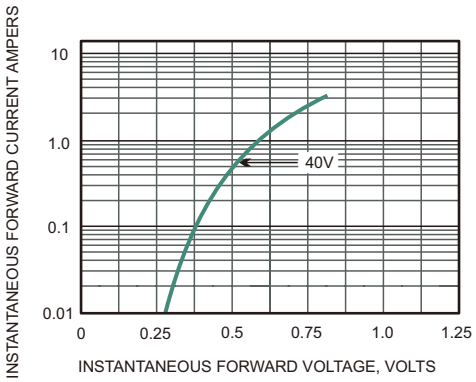
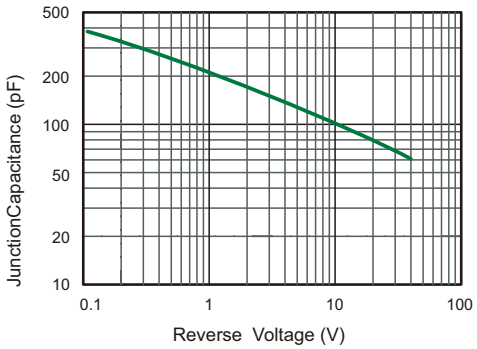
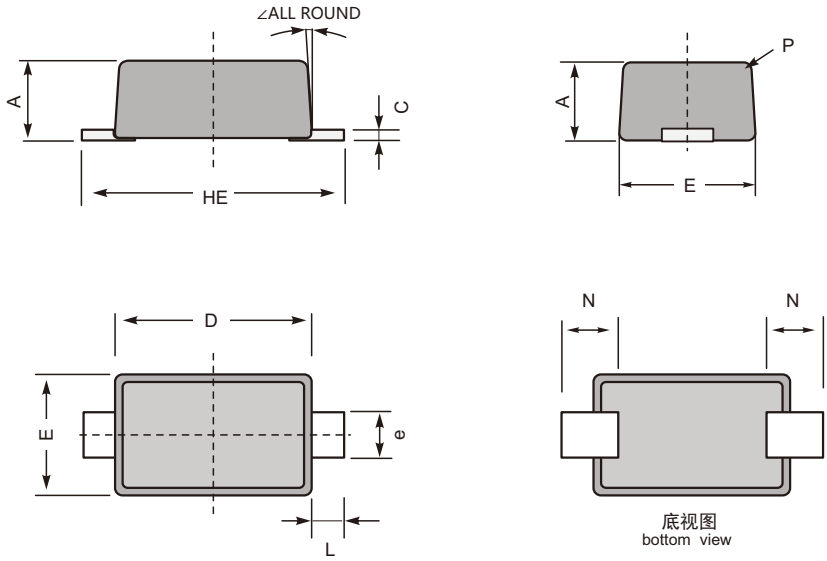


Fig.4 Typical Junction Capacitance



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads **SOD-523**



UNIT		A	e	C	D	E	HE	N	L	P	∠
mm	max	0.77	0.35	0.15	1.30	0.99	1.70	0.35 ref	0.2 ref	R0.1 ALL ROUND	10°±1°
	min	0.51	0.25	0.08	1.10	0.75	1.50				
mil	max	30	14	6	51	39	67	14 ref	8.0 ref	R4.0 ALL ROUND	
	min	20	10	3	43	30	59				

The recommended mounting pad size