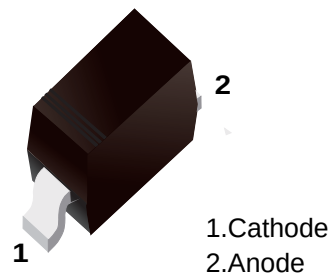


Schottky Barrier Rectifiers

■ Features

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- High Conductance
- Also Available in Lead Free Version



■ Simplified outline(SOD-323)



■ Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbols	B0520WS	B0530WS	B0540WS	Units
Peak Repetitive Reverse Voltage	V_{RRM}	20	30	40	V
RMS reverse voltage reverse voltage (DC)	V_{RMS}	14	21	28	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	V
Maximum Average Forward Current at Ta=25°C	I_O	0.5			A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	22			A
Maximum Instantaneous Forward Voltage $I_F=0.1A$ $I_F=0.5A$ $I_F=1A$	V_F	0.33 0.39 —	0.36 0.45 —	— 0.51 0.62	V
Reverse current $V_R=10V$ $V_R=15V$ $V_R=20V$ $V_R=30V$ $V_R=40V$	I_R	75 — 250 — —	— 75 100 500 —	— — 10 — 20	uA
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	500			°C/W
Junction temperature	T_j	-55 ~ +125			°C
Storage temperature	T_{stg}	-55 ~ +150			°C

■ Marking

Type	B0520WS	B0530WS	B0540WS
Marking	B2	B3	B4

Fig.1 Forward Current Derating Curve

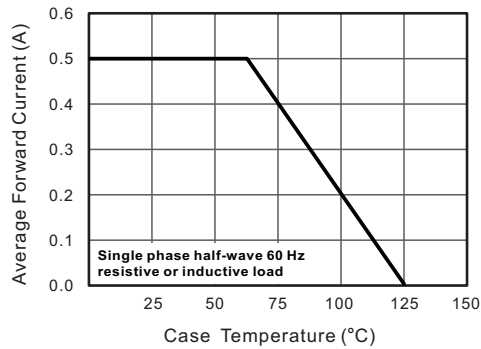


Fig.2 Typical Reverse Characteristics

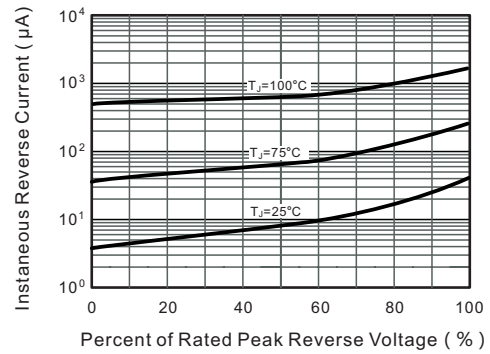


Fig.3 TYPICAL FORWARD VOLTAGE

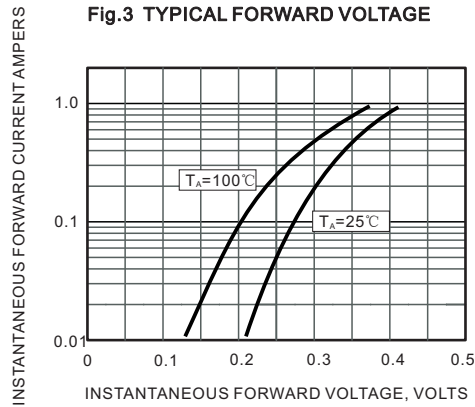


Fig.4 Typical Junction Capacitance

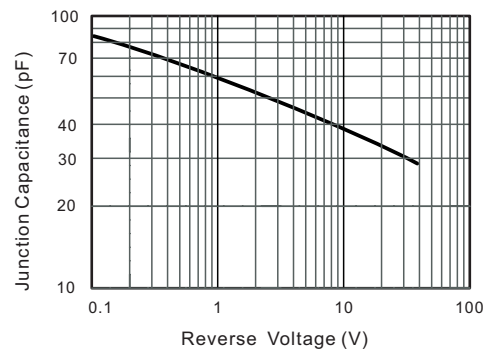


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

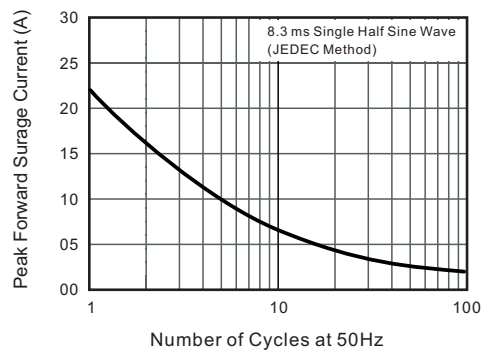
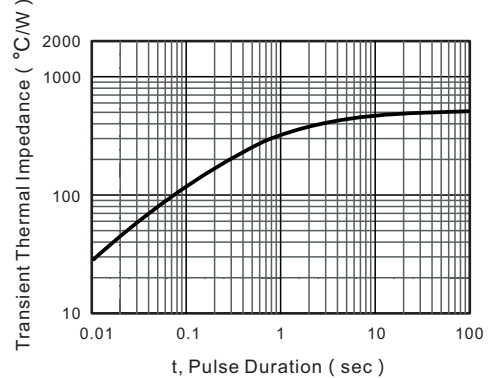
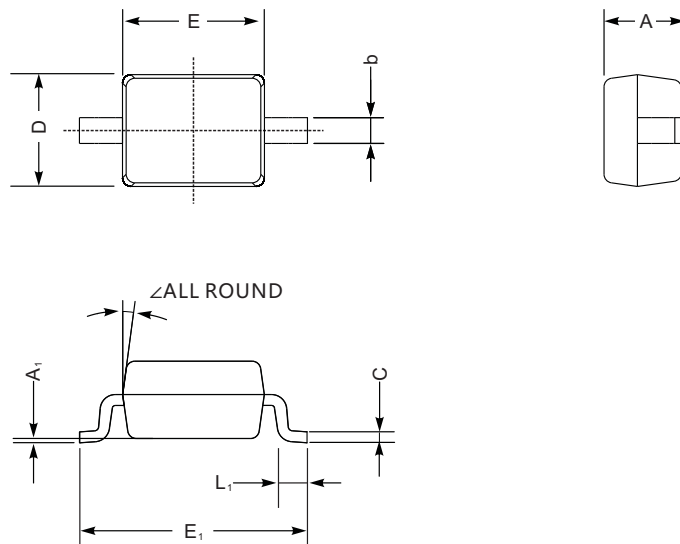


Fig.6 Typical Transient Thermal Impedance



■ SOD-323



SOD-323 mechanical data

UNIT		A	C	D	E	E ₁	b	L ₁	A ₁	∠
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2	9°
	min	0.8	0.08	1.2	1.4	2.55	0.25	0.2	—	
mil	max	43	5.9	55	70	108	16	16	8	
	min	32	3.1	47	63	100	9.8	7.9	—	

■ The recommended mounting pad size

