宏迦橙
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B0520WS THRU B0540WS

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

SOD-323

Features

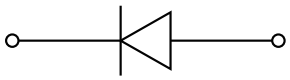
- V_R 20V/30V/40V
- $I_{F(AV)}$ 500mA
- For use in low voltage, high frequency inverters
- Free wheeling, and polanty protection applications

Applications

The device is a single rectifier offering low VF and excellent high temperature stability.

Mechanical Data

- Case: SOD-323
  Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity: Cathode line denotes the cathode end



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

PARAMETER	SYMBOL	UNIT	B0520WS	B0530WS	B0540WS
Maximum repetitive peak reverse voltage	V_{RRM}	V	20	30	40
Maximum RMS Voltage	V_{RMS}	V	14	21	28
Maximum DC blocking Voltage	V_{DC}	V	20	30	40
Maximum average forward rectified current	$I_{F(AV)}$	mA	500		
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I_{FSM}	A	5.5		
Power Dissipation	P_d	mW	200		
Storage temperature	T_{stg}	°C	-50 ~+150		
Junction temperature	T_j	°C	125		
Typical Thermal Resistance	$R_{\theta J-A}$	°C /W	500		

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

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	B0520WS	B0530WS	B0540WS
Maximum instantaneous forward voltage	I_F=0.1A	V_F	V	0.33	0.375	—
	I_F=0.5A			0.39	0.45	0.51
	I_F=1.0A			—	—	0.62
Maximum reverse current	V_R=10V	I_R	μA	75	—	—
	V_R=15V			—	80	—
	V_R=20V			250	—	10
	V_R=30V			—	500	—
	V_R=40V			—	—	20
Capacitance between terminals	V_R=0V,f=1MHz	C_T	pF	170		

Zhuhai Hongjiacheng Technology co., Ltd

Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)

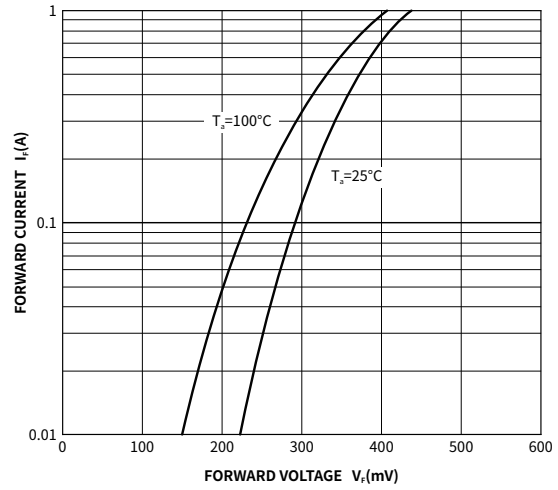


Fig.1 Typical Instaneous Forward Characteristics

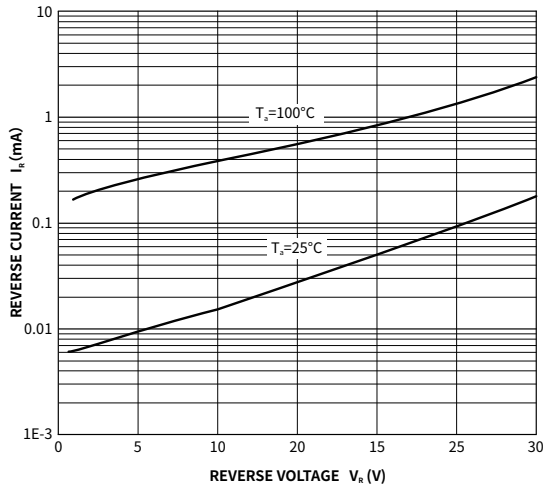


Fig.2 Typical Reverse Characteristics

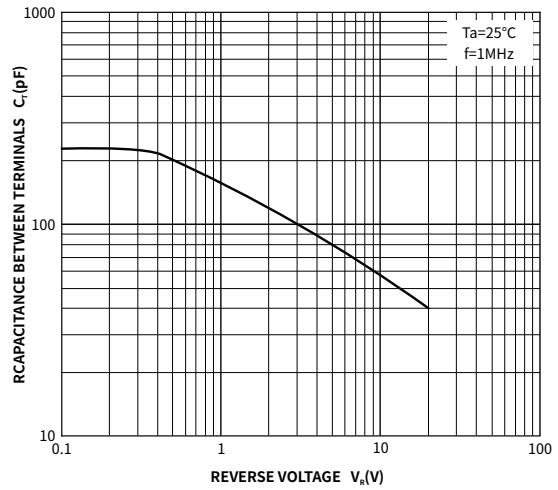


Fig.3 Typical Junction Capacitance

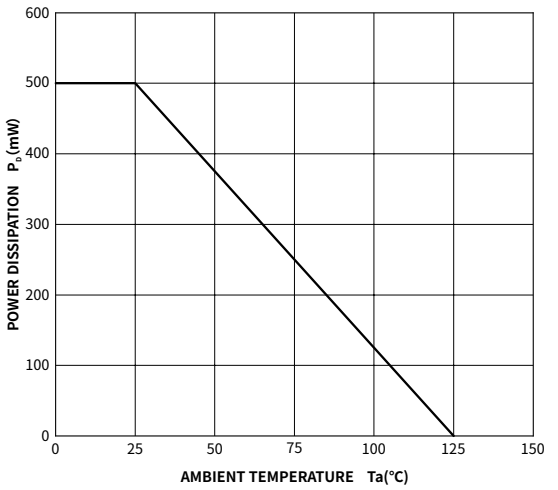
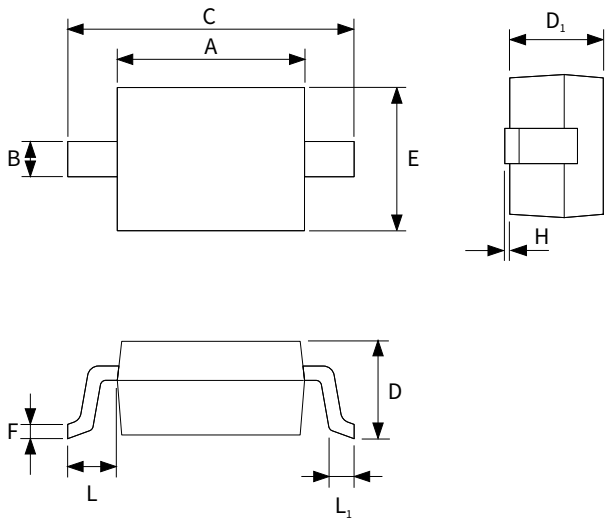


Fig.4 Power Derating Curve

Ordering Information

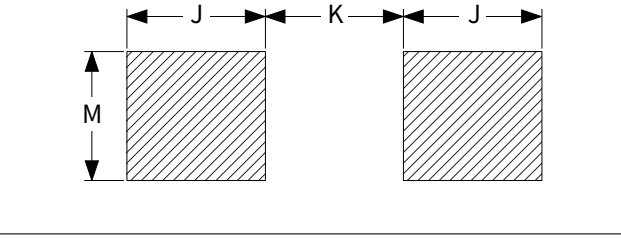
PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SOD-323	R1	0.0048	3000	30000	120000	7''

Package Outline Dimensions (SOD-323)



Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.60	1.80	0.063	0.071
B	0.25	0.40	0.010	0.016
C	2.30	2.80	0.091	0.110
D	0.80	1.10	0.031	0.043
D_1	0.80	0.90	0.031	0.035
E	1.20	1.40	0.047	0.055
F	0.08	0.18	0.003	0.007
L	0.475REF		0.019REF	
L_1	0.25	0.40	0.010	0.016
H	-	0.14	-	0.006

Suggested Pad Layout



Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
J	0.80	-	0.031	-
K	-	1.40	-	0.055
M	0.80	-	0.031	-