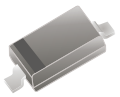
Schottky Barrier Rectifier

B0540WS-P2-HF

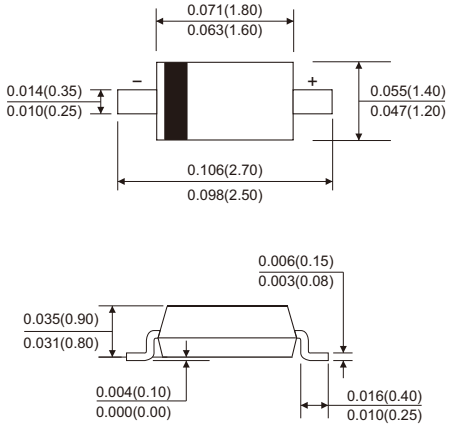
RoHS Device
Halogen Free



Features

- Low forward voltage schottky rectifier.
- High conductance.

SOD-323



Dimensions in inches and (millimeter)

Mechanical data

- Case: SOD-323, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Mounting position: Any.

Circuit Diagram



Maximum Ratings (at Ta=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Repetitive peak reverse voltage	V_{RRM}	40	V
DC blocking voltage	V_R	40	V
RMS reverse voltage	V_{RMS}	28	V
Forward continuous current	I_O	500	mA
Non-repetitive peak forward surge current @8.3ms single half sine-wave	I_{FSM}	5	A
Power dissipation	P_D	200	mW
Junction temperature	T_J	125	°C
Storage temperature range	T_{STG}	-40 to +125	°C

Electrical Characteristics (at Ta=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse breakdown voltage	I_R = 20μA	V_{BR}	40			V
Reverse current	V_R = 20V	I_R			10	μA
	V_R = 40V	I_R			20	
Forward voltage	I_F = 500mA	V_F			0.51	V
	I_F = 1A	V_F			0.62	
Capacitance between terminals	V_R = 0V, f = 1MHz	C_J			170	pF

Typical Rating and Characteristic Curves (B0540WS-P2-HF)

Fig.1 - Forward Characteristics

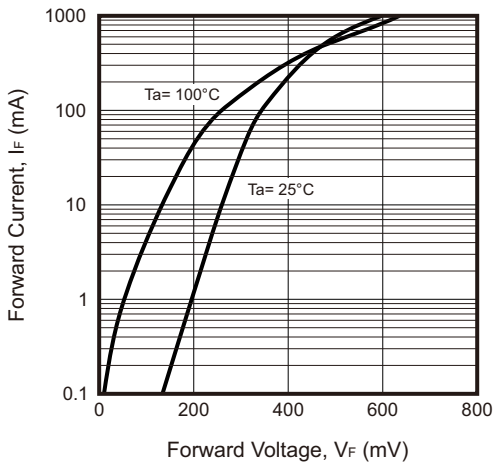


Fig.2 - Reverse Characteristics

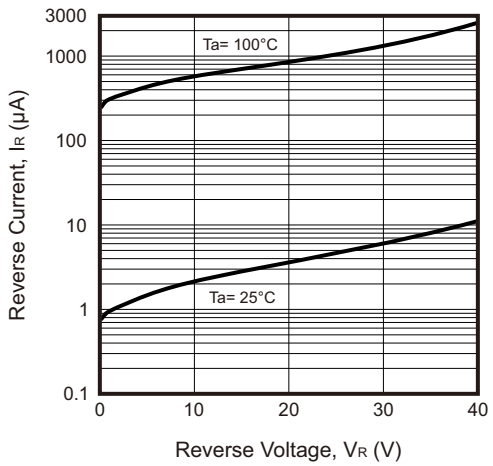


Fig.3 - Capacitance Characteristics

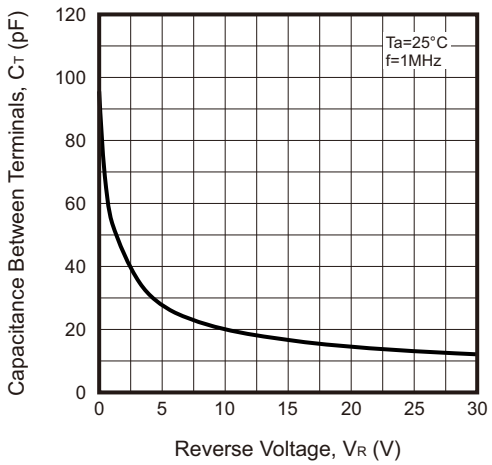
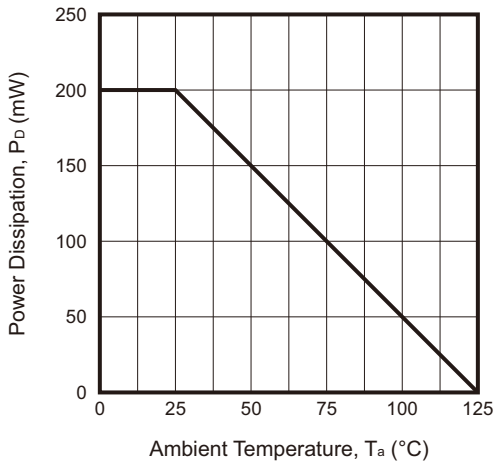
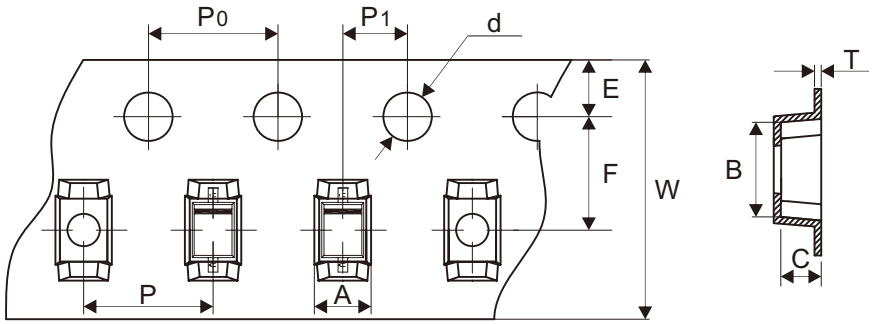
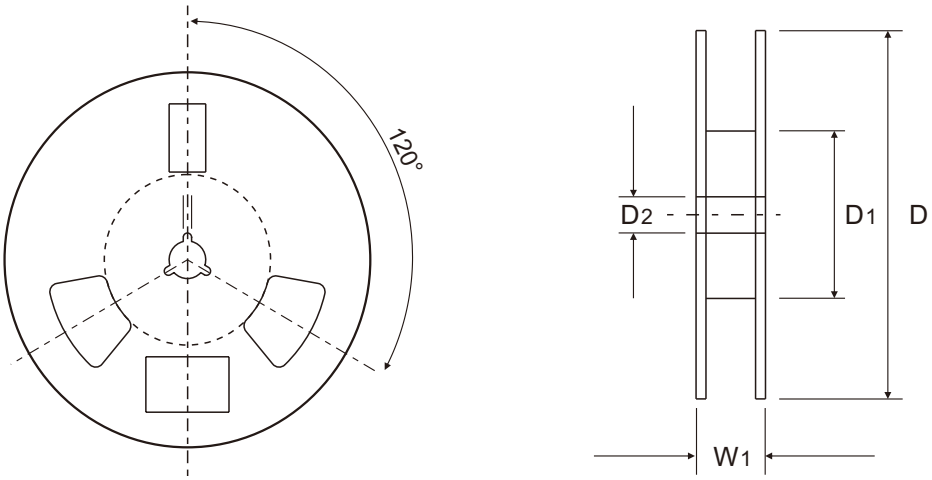


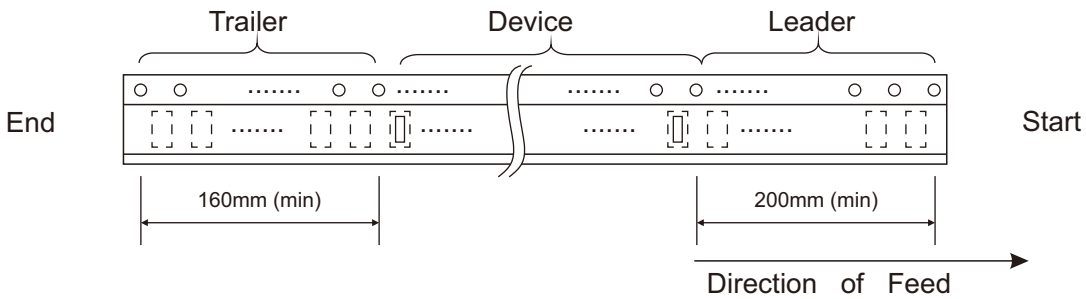
Fig.4 - Power Derating Curve



Reel Taping Specification





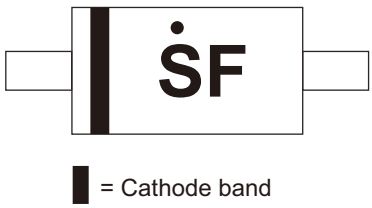


	SYMBOL	A	B	C	d	D	D_1	D_2
SOD-323	(mm)	1.46 ± 0.10	2.925 ± 0.075	1.25 ± 0.10	1.55 ± 0.05	178.00 ± 2.00	50.00 ± 0.50	13.00 ± 0.25
	(inch)	0.057 ± 0.004	0.115 ± 0.003	0.049 ± 0.004	0.061 ± 0.002	7.008 ± 0.079	1.969 ± 0.020	0.512 ± 0.010

	SYMBOL	E	F	P	P_0	P_1	T	W	W_1
SOD-323	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.254 ± 0.02	8.00 + 0.30 − 0.10	9.50 ± 0.50
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.010 ± 0.001	0.315 + 0.012 − 0.004	0.374 ± 0.020

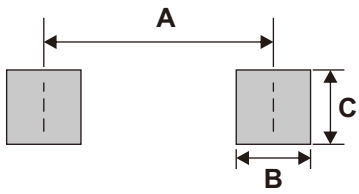
Marking Code

Part Number	Marking Code
B0540WS-P2-HF	ṠF



Suggested P.C.B. PAD Layout

SIZE	SOD-323	
	(mm)	(inch)
A	2.15	0.085
B	0.70	0.028
C	0.70	0.028



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOD-323	3,000	7