

B120W THRU B1100W

1A Surface Mount Schottky Barrier Rectifiers

■ Features

- Low profile surface mounted application in order to optimize board space.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.
- Suffix "G" indicates Halogen-free part, ex.B120WG.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

■ Mechanical data

• Epoxy:UL94-V0 rated flame retardant

• Case: Molded plastic, SOD-123

• Terminals : Solder plated, solderable per

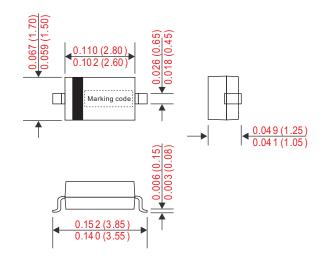
MIL-STD-750, Method 2026

Polarity : Indicated by cathode band

• Weight: 0.0004 ounce, 0.010 gram

Outline

SOD-123



Dimensions in inches and (millimeters)

■ Maximum ratings and electrical characteristics

Rating at 25° C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	See Fig.1	Io			1.0	Α
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I _{FSM}			5.5	А
B	$V_R = V_{RRM} T_A = 25^{\circ}C$				0.1	mA
Reverse current	$V_R = V_{RRM} T_A = 100^{\circ}C$	I _R			20	
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	C,		120		pF
Thermal resistance	Junction to ambient	R _{eJA}		88		°C/W
Storage temperature		T _{stg}	-55		+175	°C

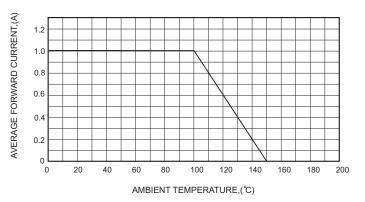
Symbol	Marking code	Max. repetitive peak reverse voltage V _{RRM} (V)	Max. RMS voltage V _{RMS} (V)	Max. DC blocking voltage $V_{_{R}}(V)$	Max. forward voltage @1A, $T_A = 25^{\circ}C$ $V_F(V)$	Operating temperature T _J (°C)		
B120W	SJ	20	14	20	0.52	-55 ~ +150		
B140W	SL, SF	40	28	40	0.55			
B160W	SM	60	42	60	0.75			
B1100W	SN	100	70	100	0.86			

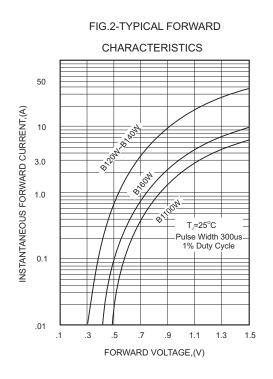
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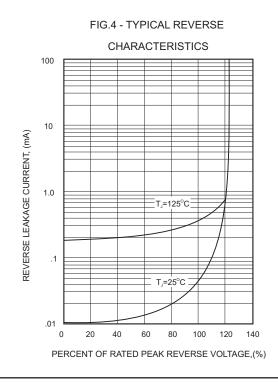
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■ Rating and characteristic curves

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE







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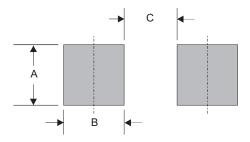
Revision: C2



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■ SOD-123 foot print



Α	В	С	
0.059 (1.50)	0.059 (1.50)	0.094 (2.40)	

Dimensions in inches and (millimeters)

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