

## Features

- Halogen Free. "Green" Device (Note 1)
- Glass Passivated Chip Junction
- High Forward Surge Capability
- Low Profile Package
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note 2) ("P" Suffix Designates RoHS Compliant. See Ordering Information)

## Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value							Unit
		DB 101L	DB 102L	DB 103L	DB 104L	DB 105L	DB 106L	DB 107L	
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	V <sub>RWM</sub>								
DC Blocking Voltage	V <sub>R</sub>								
RMS Reverse Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Average Rectified Forward Current @ T <sub>A</sub> =40°C	I <sub>F(AV)</sub>	1							A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	I <sub>FSM</sub>	30							A
Non-Repetitive Peak Surge Current @ 1ms Square Wave		60							
Current Squared Time @1ms≤t≤8.3ms	I <sup>2</sup> t	3.735							A <sup>2</sup> s

## Marking Code

Part Number	Marking Code
DB101L	DB101L
DB102L	DB102L
DB103L	DB103L
DB104L	DB104L
DB105L	DB105L
DB106L	DB106L
DB107L	DB107L

## Internal Structure

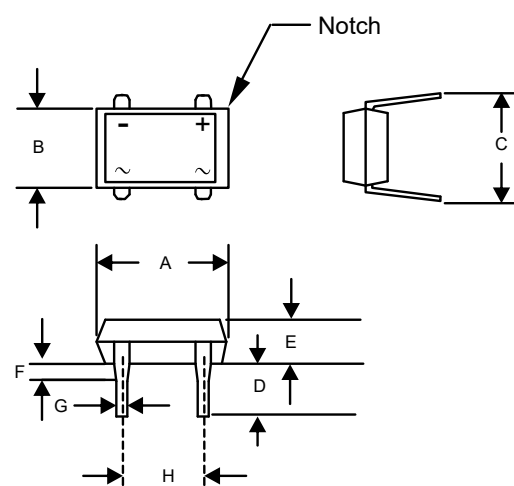
Simplified Outline	Graphic Symbol
<p>XXXXXX = Marking Code</p>	

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

2. High temperature solder exemption applied, see EU directive annex 7a.

# 1 Amp Single Phase Bridge Rectifier 50 to 1000 Volts

## DBL-1



## DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.316	0.335	8.05	8.51	
B	0.245	0.255	6.20	6.50	
C	0.300	0.350	7.60	8.90	
D	0.150	0.185	3.81	4.69	
E	0.093	0.096	2.35	2.45	
F	0.050	0.080	1.27	2.03	
G	0.018	0.023	0.46	0.56	
H	0.195	0.205	5.00	5.20	

## Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
$T_J$	Operating Junction Temperature Range		-55		150	°C
$T_{stg}$	Storage Temperature Range		-55		150	°C
$R_{th(J-L)}$	Thermal Resistance from Junction to Lead	Note 1		15		°C/W
$R_{th(J-A)}$	Thermal Resistance from Junction to Ambient	Note 1		40		°C/W

Note:

1. Device mounted on P.C.B with 35mm\*25mm\*1.7mm.

## Electrical Characteristics @ 25°C Unless Otherwise Specified(Per Diode)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	$V_F$	$I_F=0.5A; T_J=25^{\circ}C$			1.0	V
Reverse Current	$I_R$	at Rated $V_R; T_J=25^{\circ}C$ at Rated $V_R; T_J=125^{\circ}C$			5 100	$\mu A$
Junction Capacitance	$C_J$	$V_R=4V; f=1MHz; T_J=25^{\circ}C$		12		pF

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

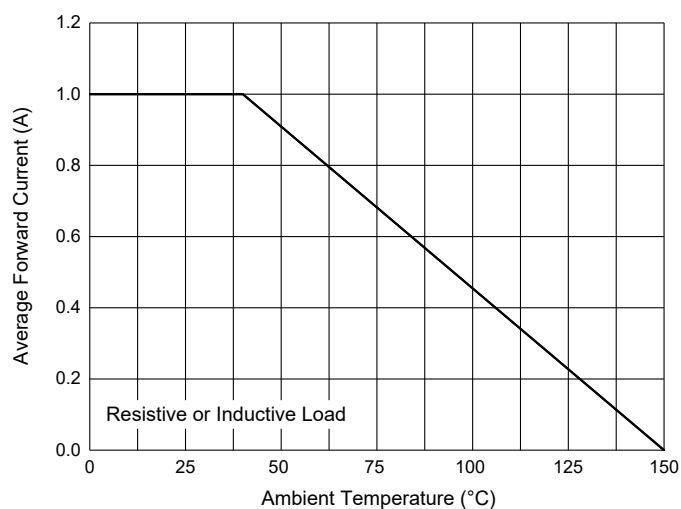


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

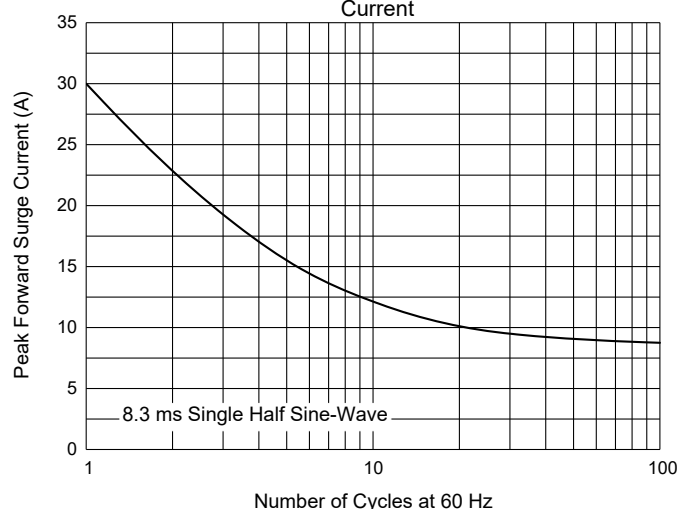


Fig. 3 - Typical Forward Characteristics

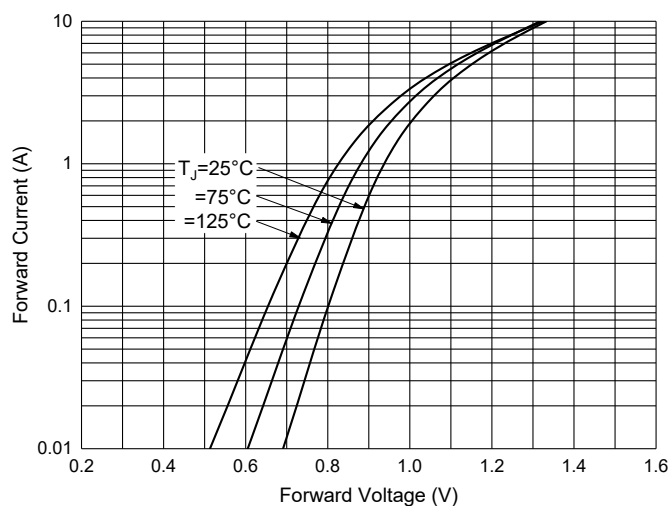


Fig. 4 - Typical Reverse Leakage Characteristics

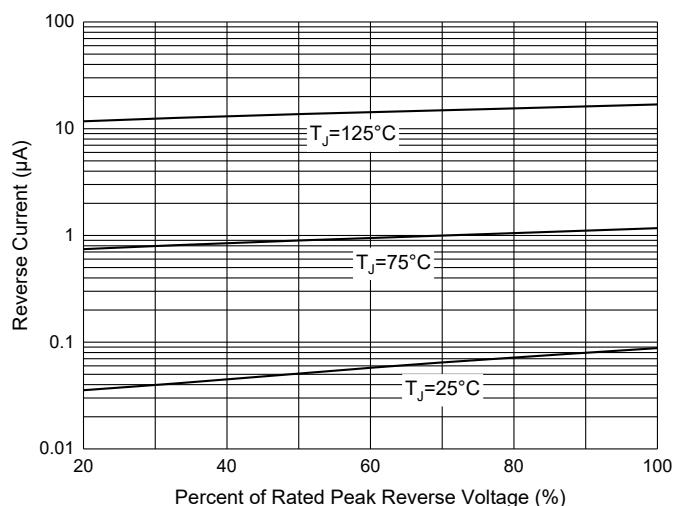
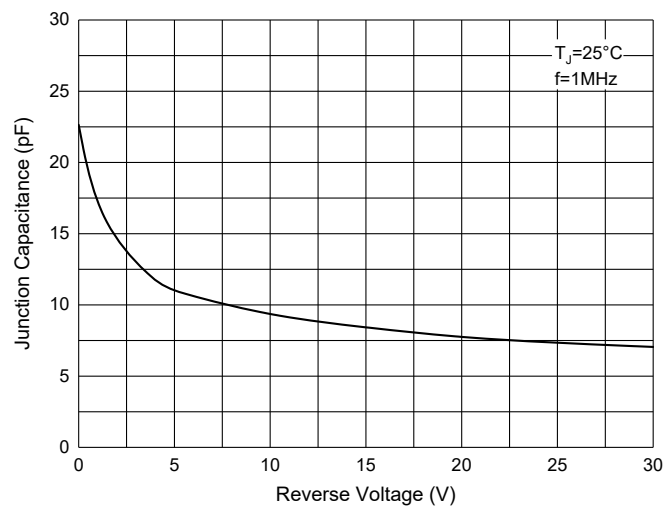


Fig. 5 - Typical Capacitance Characteristics



## Ordering Information

Device	Packing
Part Number-BP	Bulk:50pcs/Tube,2500pcs/Box,10Kpcs/Carton

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