



**THE DATASHEET OF  
DB106-BP**



	<b>E502650</b>
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**Features**

- Halogen Free. "Green" Device (Note 1)
- Glass Passivated Chip Junction
- High Forward Surge Capability
- 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)**


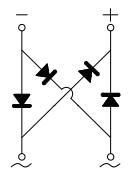
Parameter	Symbol	Value							Unit
		DB 101	DB 102	DB 103	DB 104	DB 105	DB 106	DB 107	
Peak Repetitive Reverse Voltage	$V_{RRM}$								V
Working Peak Reverse Voltage	$V_{RWM}$	50	100	200	400	600	800	1000	
DC Blocking Voltage	$V_R$								
RMS Reverse Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Average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

# 1 Amp Single Phase Bridge Rectifier 50 to 1000 Volts

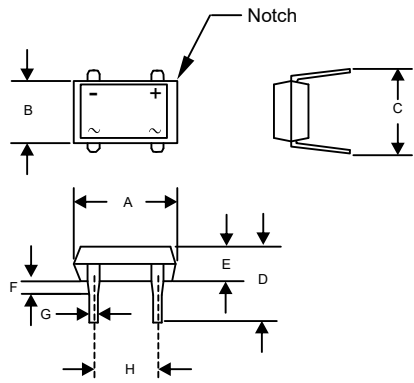
**Marking Code**

Part Number	Marking Code
DB101	DB101
DB102	DB102
DB103	DB103
DB104	DB104
DB105	DB105
DB106	DB106
DB107	DB107

**Internal Structure**

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

## DB-1



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	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	0.236	0.299	6.01	7.60	
E	0.102	0.130	2.60	3.30	
F	0.060		1.50		Typ
G	0.016	0.022	0.41	0.56	Typ
H	0.195	0.205	5.00	5.20	

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.

## 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

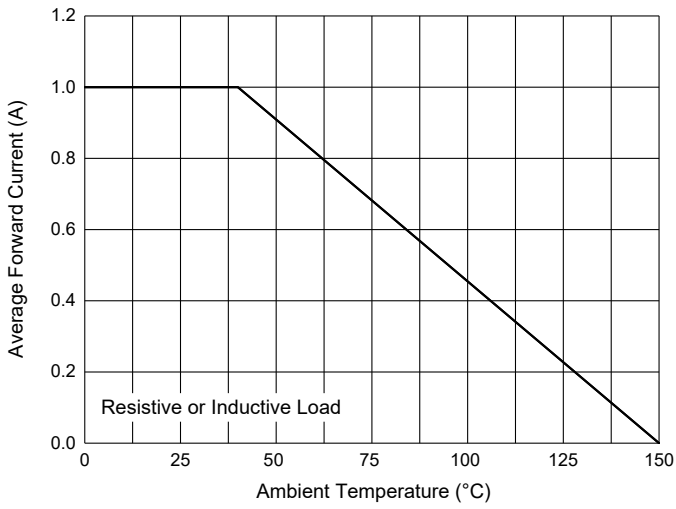


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

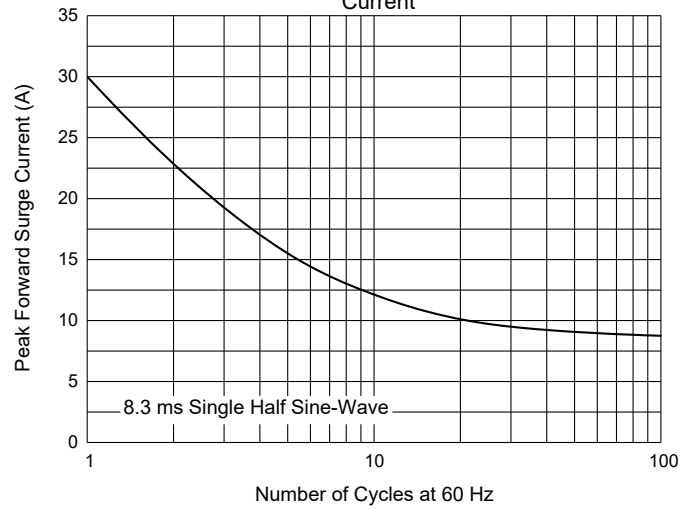


Fig. 3 - Typical Forward Characteristics

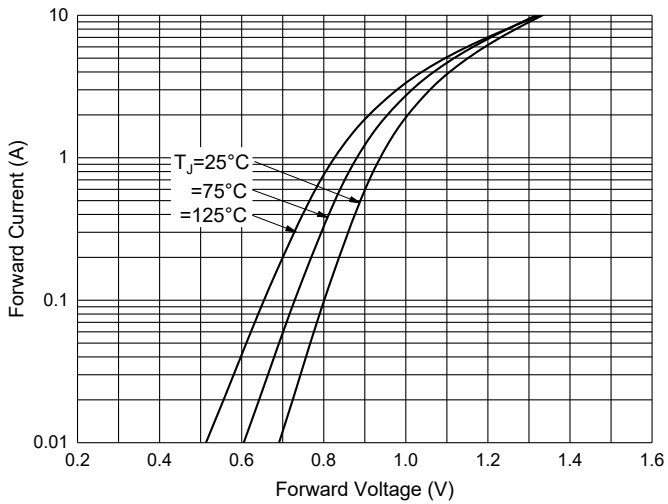


Fig. 4 - Typical Reverse Leakage Characteristics

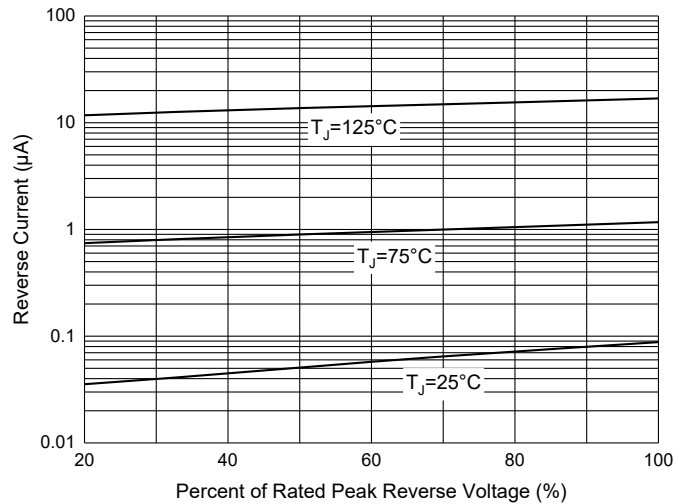
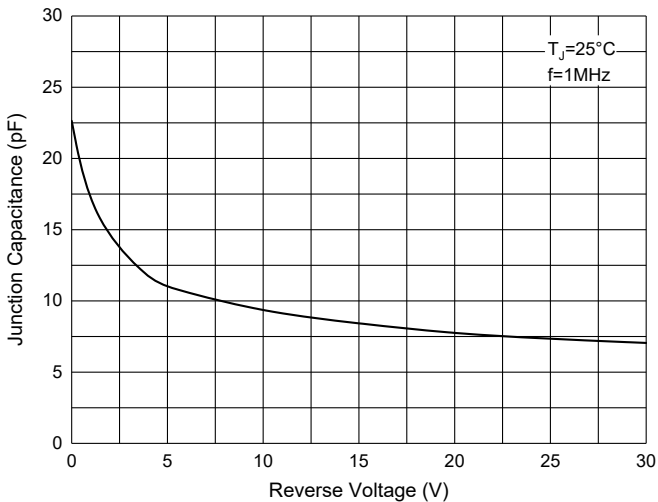


Fig. 5 - Typical Capacitance Characteristics



## Ordering Information

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

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