

**Micro Commercial Components** 

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# **SDB101 THRU SDB107**

### **Features**

- Surface Mount and Low Profile Package
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1
- UL Recognized File # E165989 Lead Free Finish/RoHS Compliant (NOTE 1)("P" Suffix designates RoHS Compliant. See ordering information)

### **Maximum Ratings**

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

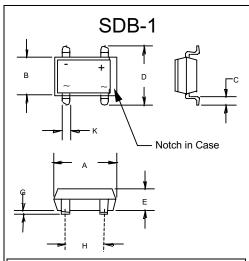
MCC		Maximum	Maximum	Maximum
Part	Device	Recurrent	RMS	DC
Number	Marking	Peak Reverse	Voltage	Blocking
		Voltage		Voltage
SDB101	SDB101	50V	35V	50V
SDB102	SDB102	100V	70V	100V
SDB103	SDB103	200V	140V	200V
SDB104	SDB104	400V	280V	400V
SDB105	SDB105	600V	420V	600V
SDB106	SDB106	800V	560V	800V
SDB107	SDB107	1000V	700	1000V

#### Electrical Characteristics @ 25° C Unless Otherwise Specified

Average Forward	I <sub>F(AV)</sub>	1.0 A	T <sub>A</sub> = 40°C
Current			
Peak Forward Surge	I <sub>FSM</sub>	50A	8.3ms, half sine
Current			
Maximum			
Instantaneous	$V_{F}$	1.1V	$I_{FM} = 1.0A;$
Forward Voltage			T <sub>A</sub> = 25°C
Maximum DC			
Reverse Current At	$I_R$	10μΑ	T <sub>A</sub> = 25°C
Rated DC Blocking		0.5mA	T <sub>A</sub> = 125°C
Voltage			
Typical Junction	CJ	25pF	Measured at
Capacitance			1.0MHz, V <sub>R</sub> =4.0V

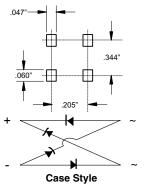
Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7

# 1.0 Amp Single Phase **Bridge Rectifier** 50 to 1000 Volts



DIMENSIONS							
	INCHES		ММ				
DIM	MIN	MAX	MIN	MAX	NOTE		
Α	.316	.335	8.05	8.51			
В	.245	.255	6.20	6.50			
С	.040	.060	1.02	1.50			
D	.360	.410	9.40	10.4			
Е	.102	.130	2.60	3.30			
G	.003	.013	.076	.330			
Н	.195	.205	5.00	5.20			
K	.038	.047	1.00	1.20			

#### Suggested Solder Pad Layout

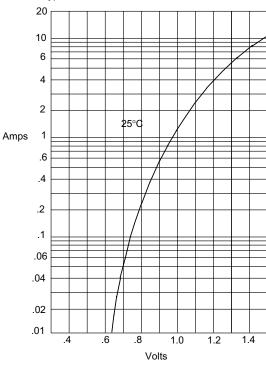


## SDB101 thru SDB107



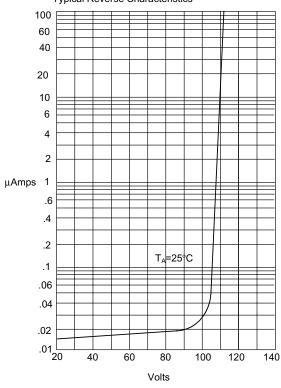
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Figure 1
Typical Forward Characteristics

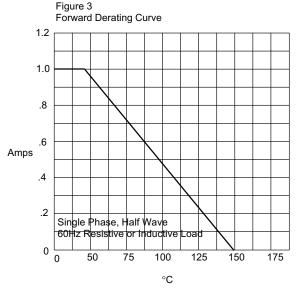


Instantaneous Forward Current - Amperesversus Instantaneous Forward Voltage - Volts

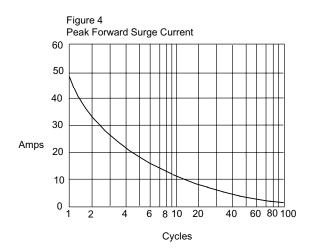
Figure 2 Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperesersus Percent Of Rated Peak Reverse Voltage - Volts



Average Forward Rectified Current - Amperes/ersus Ambient Temperature - $^{\circ}$ C



Peak Forward Surge Current - Amperesversus Number Of Cycles At 60Hz - Cycles



### **Ordering Information**

Device	Packing
(Part Number)-TP	Tape&Reel1.5Kpcs/Reel
(Part Number)-BP	Bulk;50pcs/Tube

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