

**SINGLE-PHASE GLASS PASSIVATED  
SILICON BRIDGE RECTIFIER**  
VOLTAGE RANGE 50 to 1000 Volts CURRENT 1.0 Ampere

**FEATURES**

- \* Good for automation insertion
- \* Surge overload rating - 30 amperes peak
- \* Ideal for printed circuit board
- \* Reliable low cost construction utilizing molded
- \* Glass passivated device
- \* Polarity symbols molded on body
- \* Mounting position: Any

**MECHANICAL DATA**

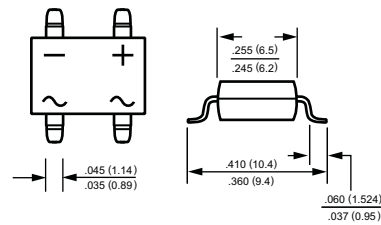
- \* Epoxy: Device has UL flammability classification 94V-0

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
resistive or inductive load.



DB-S



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS** (At  $T_A = 25^\circ\text{C}$  unless otherwise noted)

RATINGS	SYMBOL	DB101S	DB102S	DB103S	DB104S	DB105S	DB106S	DB107S	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Output Current at $T_A = 40^\circ\text{C}$	$I_O$	1.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	30							Amps
Typical Current Squared Time	$I^2t$	3.73							$\text{A}^2\text{Sec}$
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	40							$^\circ\text{C}/\text{W}$
	$R_{\theta JL}$	15							
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to + 150							$^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS** (At  $T_A = 25^\circ\text{C}$  unless otherwise noted)

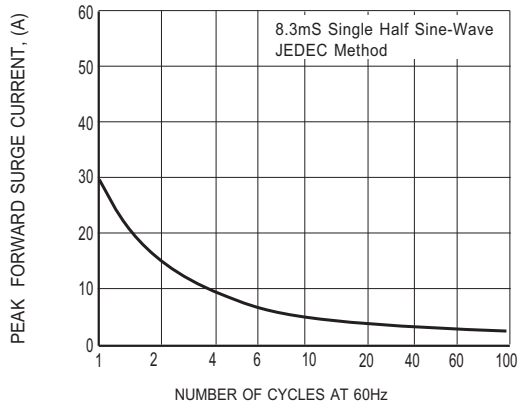
CHARACTERISTICS	SYMBOL	DB101S	DB102S	DB103S	DB104S	DB105S	DB106S	DB107S	UNITS	
Maximum Forward Voltage Drop per chip ( diode ) at 1.0A DC	$V_F$	1.0							Volts	
Maximum Reverse Current at Rated	$I_R$	0.05							@ $T_A = 25^\circ\text{C}$	uAmps
DC Blocking Voltage per element									@ $T_A = 125^\circ\text{C}$	mAmps

Note: 1. " ROHS compliant".

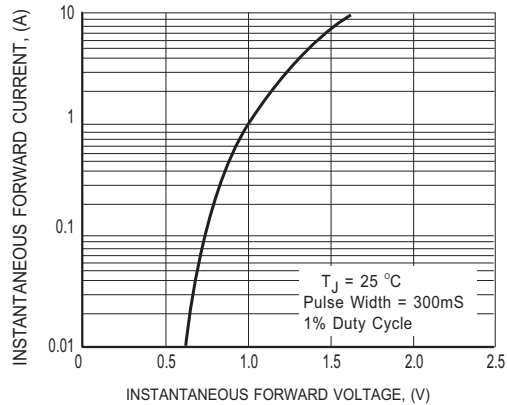
2. Thermal Resistance: Mounted on PCB.

2020-04/97  
REV:E

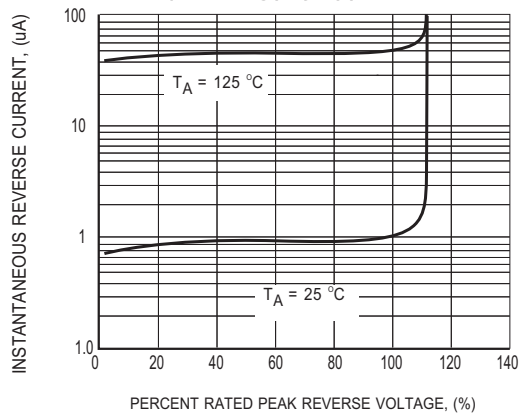
## RATING AND CHARACTERISTICS CURVES ( DB101S THRU DB107S )



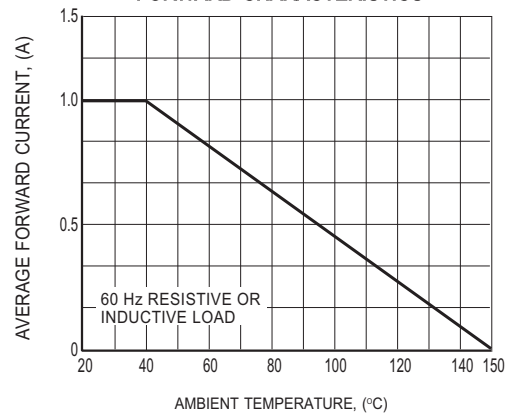
**FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**FIG. 2 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS**

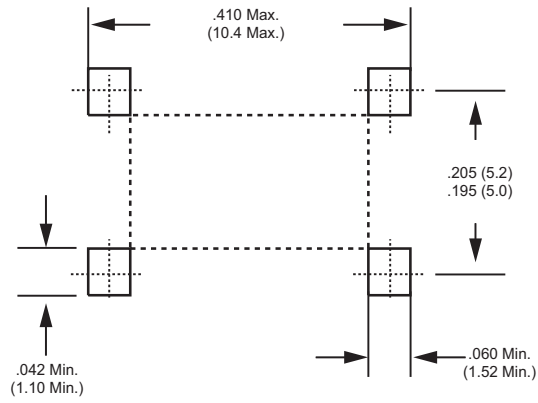


**FIG. 3 MAXIMUM REVERSE CHARACTERISTICS**



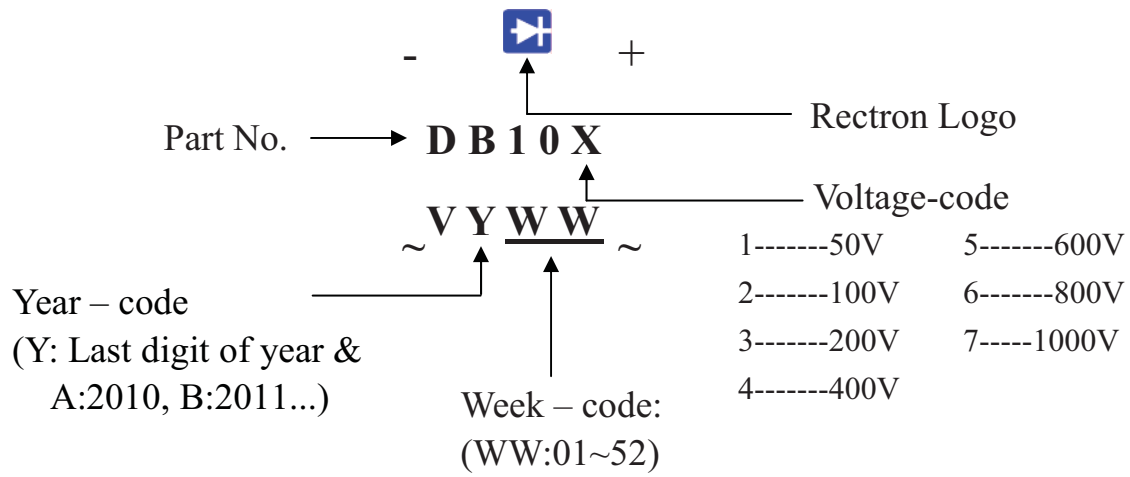
**FIG. 4 TYPICAL FORWARD CURRENT DERATING CURVE**

## Mounting Pad Layout



Dimensions in inches and (millimeters)

## Marking Description



## PACKAGING OF DIODE AND BRIDGE RECTIFIERS

### BULK PACK

PACKAGE	PACKING CODE	EA PER BOX	INNER BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON	WEIGHT(Kg)
DB-S	-C	4,000	450*140*84	464*305*283	24,000	18.44

### REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
DB-S	-T/W	1,000	1,000	9.5	52	330	360*355*360	8,000	9.8

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