



# THE DATASHEET OF DB204S



**SINGLE-PHASE GLASS PASSIVATED  
SILICON BRIDGE RECTIFIER**  
VOLTAGE RANGE 50 to 1000 Volts CURRENT 2.0 Amperes

**FEATURES**

- \* Good for automation insertion
- \* Surge overload rating - 60 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**

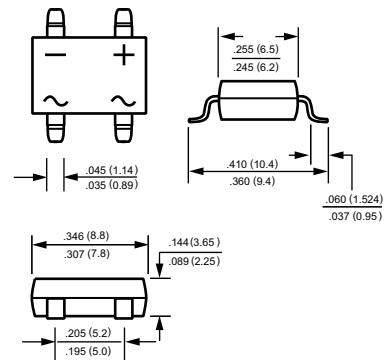
- \* Epoxy: Device has UL flammability classification 94V-0

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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



DB-S



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

RATINGS	SYMBOL	DB201S	DB202S	DB203S	DB204S	DB205S	DB206S	DB207S	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 $T_A = 40^\circ\text{C}$	$I_O$	2.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	60							Amps
Typical Current Squared Time	$I^2T$	14.9							A·S
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							$^\circ\text{C}$

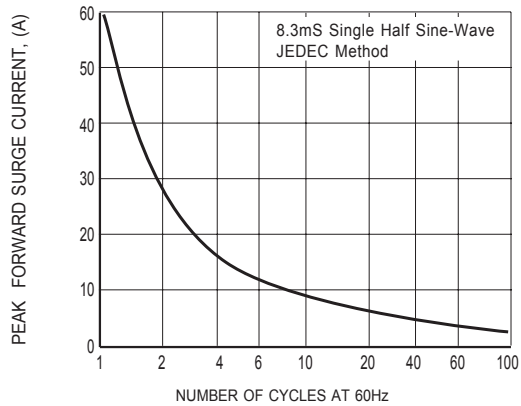
**ELECTRICAL CHARACTERISTICS** (At  $T_A = 25^\circ\text{C}$  unless otherwise noted)

CHARACTERISTICS	SYMBOL	DB201S	DB202S	DB203S	DB204S	DB205S	DB206S	DB207S	UNITS
Maximum Forward Voltage Drop per Bridge Element at 2.0A DC	$V_F$	1.1							Volts
Maximum Reverse Current at Rated DC Blocking Voltage per element	@ $T_A = 25^\circ\text{C}$	5.0							uAmps
	@ $T_A = 125^\circ\text{C}$	0.5							

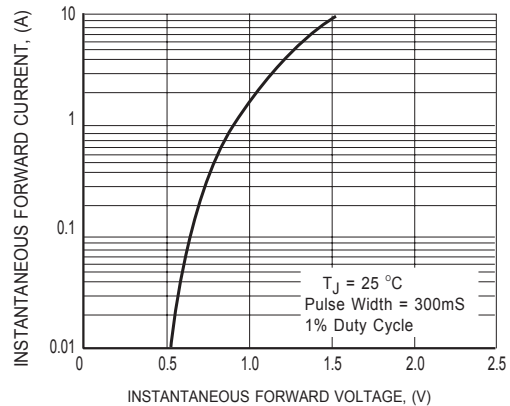
Note: 1. "ROHS compliant"  
2. Thermal Resistance: Mounted on PCB.

2022-09/97  
REV:D

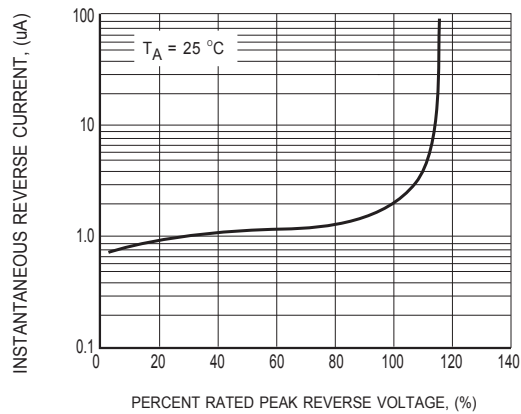
## RATING AND CHARACTERISTICS CURVES ( DB201S THRU DB207S )



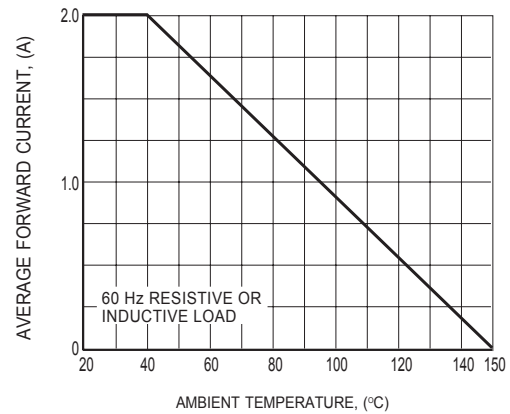
**FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**FIG. 2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**

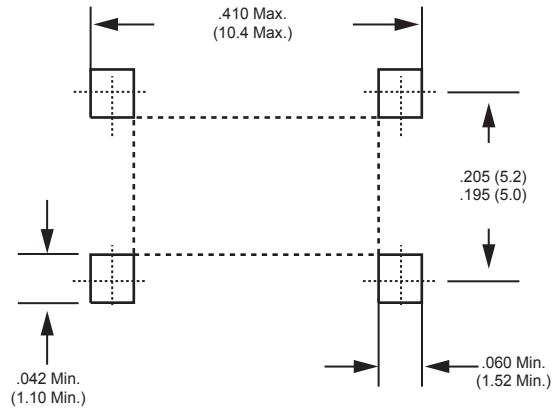


**FIG. 3 TYPICAL REVERSE CHARACTERISTICS**



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

## Mounting Pad Layout



Dimensions in inches and (millimeters)

# REEL TAPING SPECIFICATIONS FOR SURFACE MOUNT DEVICES - DBS

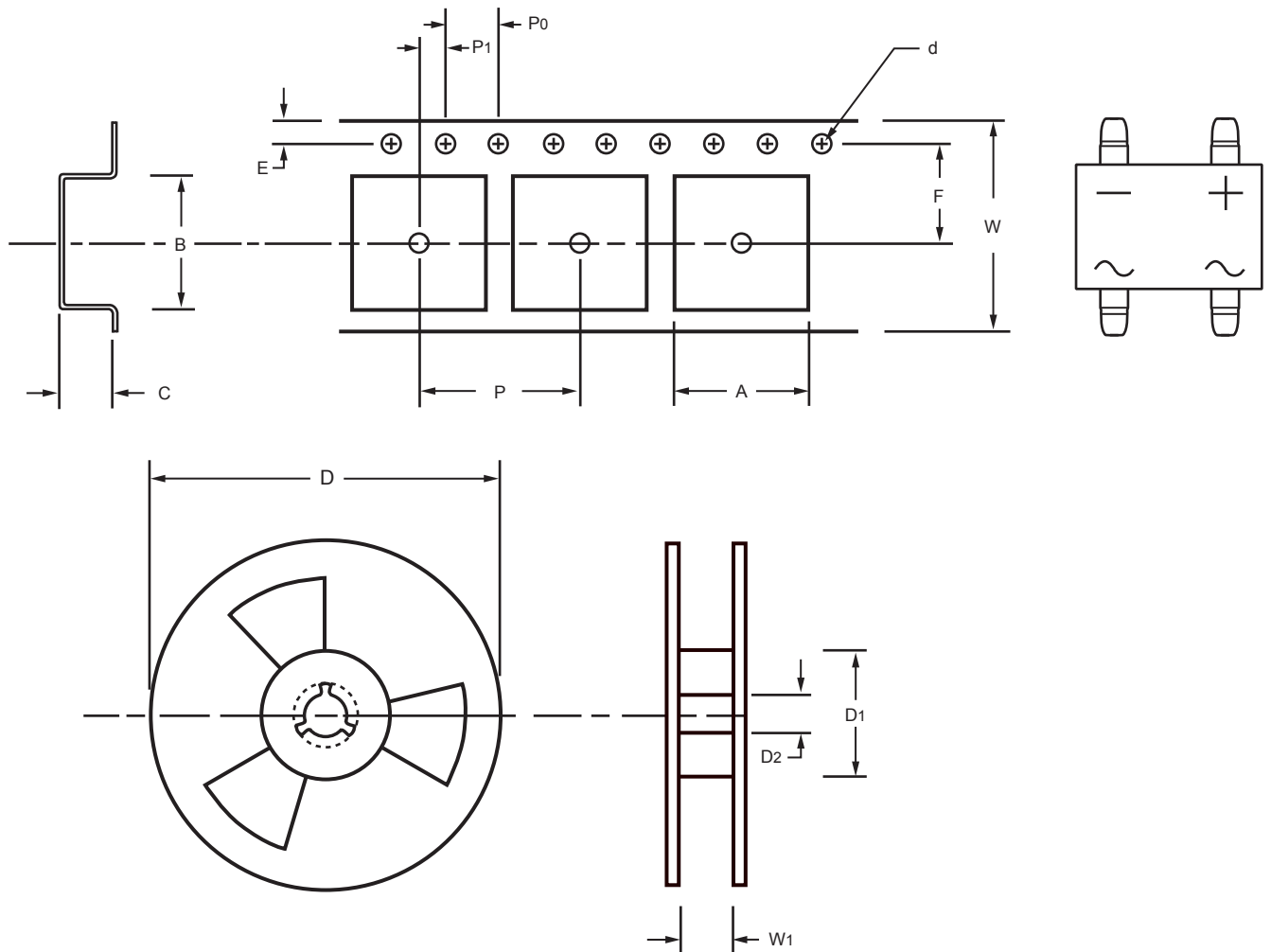


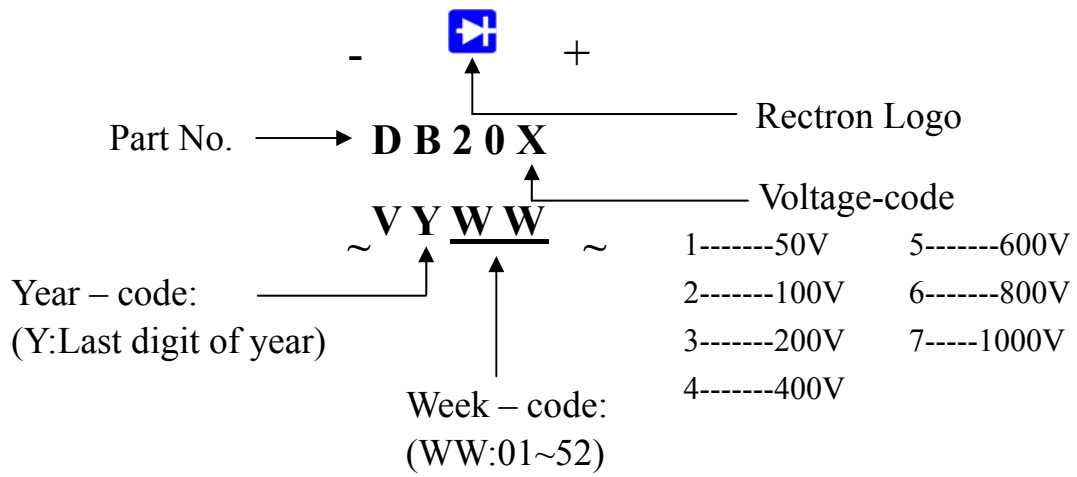
Fig.: Configuration of DBS REEL TAPING

ITEM	SYMBOL	SPECIFICATIONS (mm)	SPECIFICATIONS (inch)
Carrier width	A	10.2 ± 0.1	0.402 ± 0.004
Carrier length	B	10.3 ± 0.1	0.406 ± 0.004
Carrier depth	C	4.25 ± 0.1	0.167 ± 0.004
Sprocket hole	d	1.55 ± 0.1	0.061 ± 0.004
Reel outside diameter	D	330.0 ± 2.0	12.992 ± 0.079
Reel inner diameter	D <sub>1</sub>	16.4 ± 2.0	0.646 ± 0.079
Feed hole diameter	D <sub>2</sub>	13.0 ± 0.2	0.512 ± 0.008
Sprocket hole position	E	1.75 ± 0.1	0.069 ± 0.004
Punch hole position	F	7.5 ± 0.1	0.295 ± 0.004
Punch hole pitch	P	12.0 ± 0.1	0.472 ± 0.004
Sprocket hole pitch	P <sub>0</sub>	4.0 ± 0.1	0.157 ± 0.004
Embossment center	P <sub>1</sub>	2.0 ± 0.1	0.079 ± 0.004
Tape width	W	16.0 ± 0.3	0.63 ± 0.012
Reel width	W <sub>1</sub>	22.4 ± 1.0	0.882 ± 0.039

Notes : 1.Devices are packed in accordance with EIA stand RS-481-D and specifications listed above. Available only for DB-S devices.

2. Available on 7 inch ( 1000 c.t. ) or 13 inch ( 5000 c.t. ) diameter reels.

## Marking Description



## PACKAGING OF DIODE AND BRIDGE RECTIFIERS



### 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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