

# UDB301 THRU UDB307

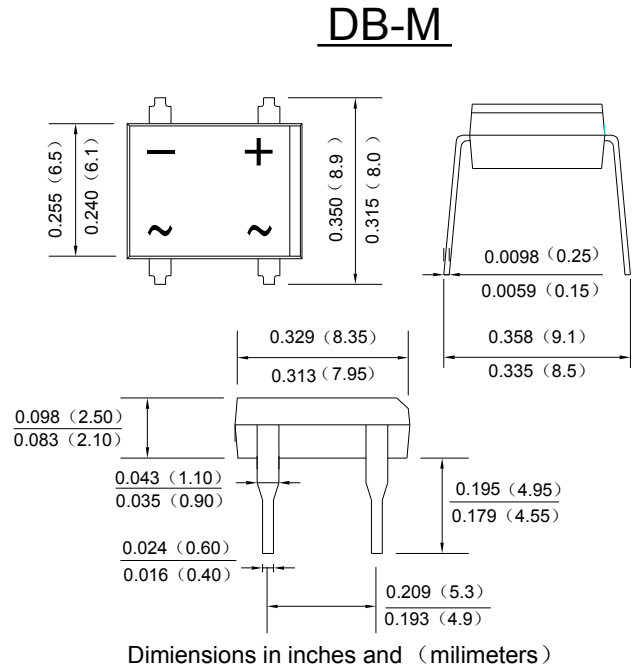
## SINGLE PHASE 3.0AMP GLASS PASSIVATED BRIDGE RECTIFIER

### Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0

### Mechanical Data

- Case: DB-M, molded plastic
- Terminals: plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting position: Any
- Marking: type number
- Lead Free: For RoHS / Lead Free Version,



### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

TYPE NUMBER	SYMBOL	UDB301	UDB302	UDB303	UDB304	UDB305	UDB306	UDB307	UNITS	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub>									
	V <sub>RWM</sub>	50	100	200	400	600	800	1000	V	
	V <sub>DC</sub>									
RMS Reverse Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V	
Average Rectified Output Current (Note 1)@T <sub>A</sub> =40°C	I <sub>o</sub>	3.0								A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	80								A
Forward Voltage per element @IF=3.0A	V <sub>FM</sub>	1.0		1.3		1.7			V	
Peak Reverse Current @T <sub>A</sub> =25°C At Rated DC Blocking Voltage @T <sub>A</sub> =125°C	I <sub>R</sub>				5.0			500		uA
Maximum reverse recovery time (Note 3)	T <sub>RR</sub>	50				75			ns	
Typical Junction Capacitance per leg (Note 2)	C <sub>J</sub>				25					pF
Typical Thermal Resistance per leg	R <sub>θJA</sub>				40					°C/W
	R <sub>θJL</sub>				15					
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55to+150							°C	

Note:1. Mounted on glass epoxy PC board with 1.3mm<sup>2</sup> solder pad.

2.Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

Fig. 1 Output Current Derating Curve

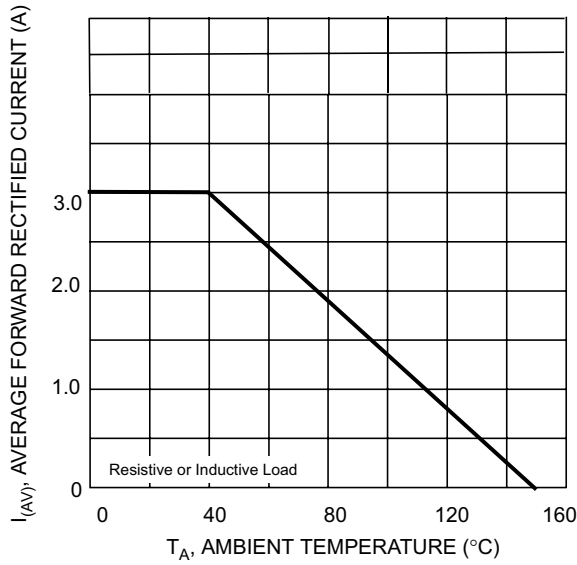


Fig. 2 Typical Forward Characteristics (per leg)

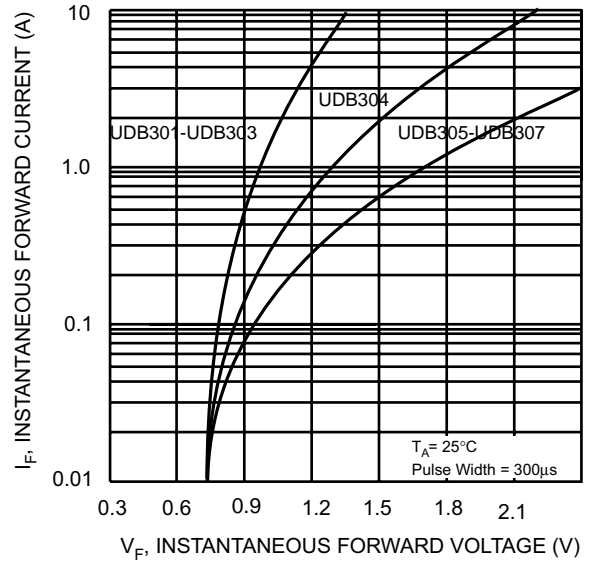


Fig. 3 Maximum Peak Forward Surge Current (per leg)

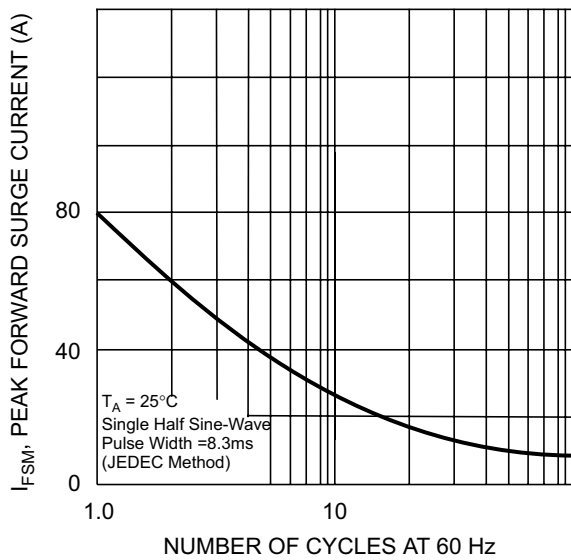


Fig. 4 Typical Reverse Characteristics (per element)

