UDB301S THRU UDB307S

SINGLE PHASE 3.0AMP SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

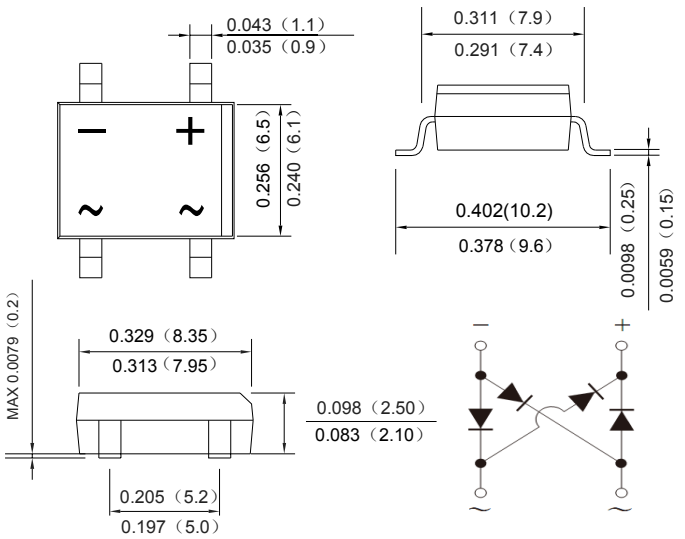
Features

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

Mechanical Data

- Case: DB-S, 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

DB-S



Dimensions in inches and （millimeters）

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.
Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	SYMBOL	UDB 301S	UDB 302S	UDB 303S	UDB 304S	UDB 305S	UDB 306S	UDB 307S	UNITS
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_{DC}	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1)@T_C=100℃	IF(AV)	3.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	80							A
I^2t Rating for Fusing (t < 8.3ms)	I^2t	26.56							A^2s
Forward Voltage per element @IF=3.0A	V_{FM}	1.0			1.3	1.7			V
Peak Reverse Current @T_A=25℃ At Rated DC Blocking Voltage @T_A=125℃	I_R	5.0 200							uA
Maximum reverse recovery time（Note 3）	T_{RR}	50				75			ns
Typical Junction Capacitance per leg (Note 2)	C_J	25							pF
Typical Thermal Resistance per leg	$R_{\theta JA}$ $R_{\theta JL}$	40 15							℃/W
Operating and Storage Temperature Range	T_J,T_{STG}	-55to+150							℃

Note:1. Mounted on glass epoxy PC board with 1.3mm^2 solder pad.
2.Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

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Fig. 1 Output Current Derating Curve

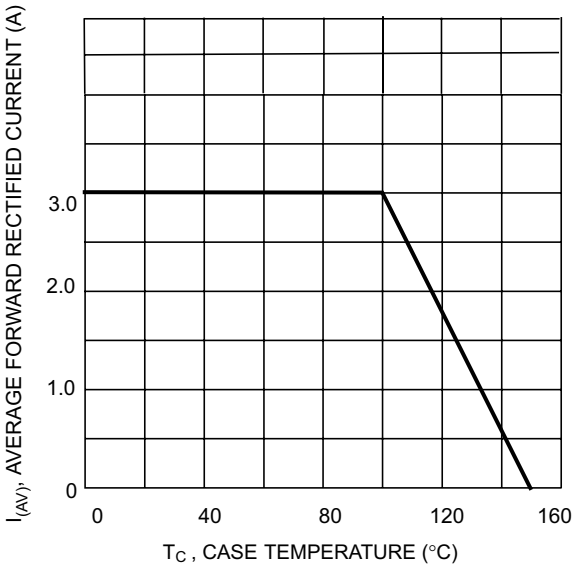


Fig. 2 Typical Forward Characteristics (per leg)

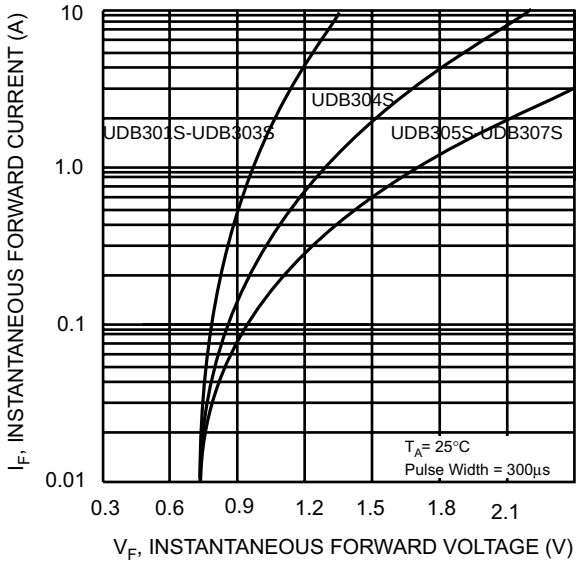


Fig. 3 Maximum Peak Forward Surge Current (per leg)

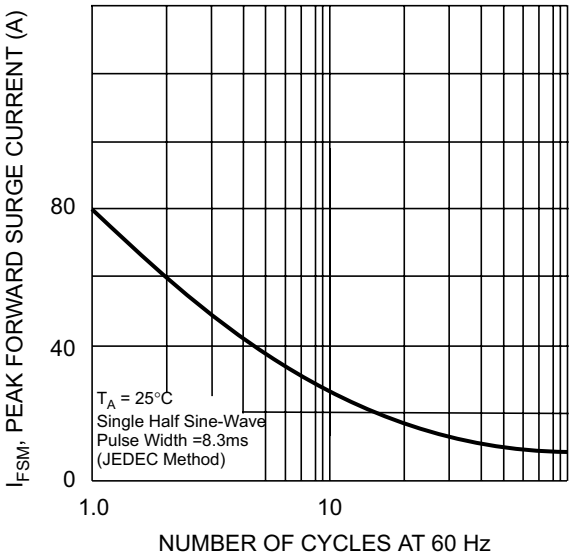


Fig. 4 Typical Reverse Characteristics (per element)

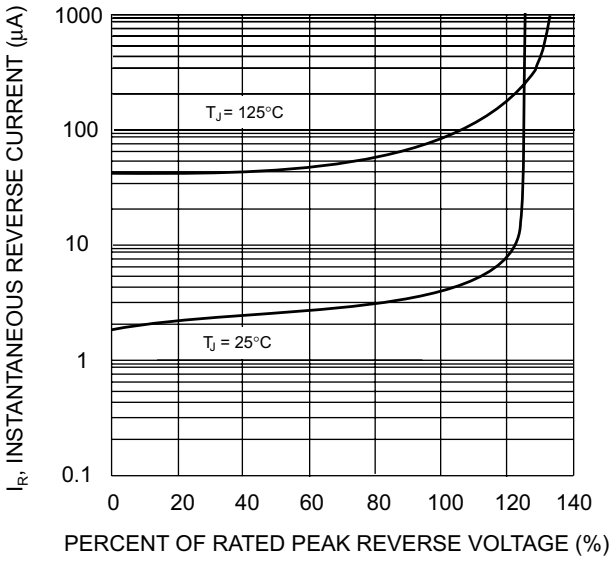
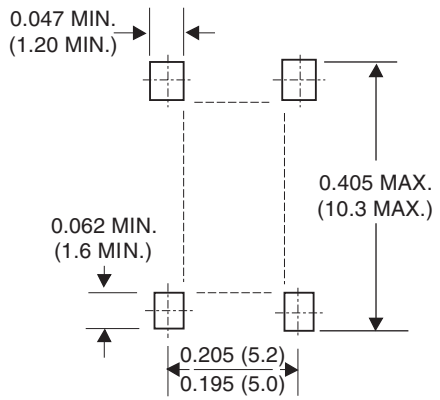


Fig. 5 **Mounting Pad Layout**



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